

DXA-C70

SERVICE MANUAL

This set is the Amplifier,
cassette deck section
in MHC-70 and FH-C7X.



*US Model
Canadian Model
AEP Model
UK Model
E Model
Australian Model
Tourist Model*

Tape deck Section	Model Name Using Similar Mechanism		HCD-H61 HCD-H61M
	Tape Transport Mechanism	DECK A	TCM-190RA12A
	Type	DECK B	TCM-190RB22A

SPECIFICATIONS

Amplifier Section

(For US, Canada)

Continuous RMS power output

50 + 50 watts (6 ohms at
40 Hz — 20 kHz, 0.9%
THD) 65 + 65 watts
(6 ohms at 1 kHz, 5%
THD)

(For AEP, UK, German and Italy)

Continuous RMS power output

40 + 40 watts (6 ohms at
1 kHz, DIN)
45 + 45 watts (6 ohms at
1 kHz, 5% THD)

Music power output 110 + 110 watts

(6 ohms at 1 kHz, 10%
THD)

(For Australia)

Continuous RMS power output

50 + 50 watts (6 ohms at
1 kHz, 5% THD)

Peak music power output

600 watts (4 speakers
driven)

(For E, Saudi Arabia, Singapore and Tourist)

Peak music power output

600 watts (4 speakers driven)

Continuous RMS power output

50 + 50 watts (6 ohms at
1 kHz, 5% THD)

Inputs

MIX MIC (mini jack):
sensitivity 1mV,
impedance 47 kilohms
(Except US, Canada)

PHONO IN (Phono jacks):
sensitivity 3 mV,
impedance 47 kilohms
(AEP, UK, German, Italy)

VIDEO IN (phono jacks):
sensitivity 250 mV,
impedance 47 kilohms
(US, Canada, FH-C7X)

MD/DAT IN (phono jacks):
sensitivity 250 mV,
impedance 47 kilohms

HEADPHONES
(stereo minijack):
accepts headphones of
8 ohms or more

Outputs

SPEAKERS:

accepts speakers or 6 to
16 ohms

MD/DAT OUT (phono jacks):
voltage 250 mV
impedance 1 kilohm

Cassette Deck Section

Recording system 4-track 2-channel stereo

(DOLBY NR OFF)
40 — 13,000 Hz (±3 dB),
using TYPE I cassette
(Sony HF-S)

40 — 14,000 Hz (±3 dB),
using TYPE II cassette
(Sony UX-S or UX)

40 — 15,000 Hz (±3 dB),
using TYPE IV cassette
(Sony ES-IV) (US, Canada)
(Sony METAL-S) (Except
US, Canada)

Wow and flutter 0.1% WRMS ± 0.3% (DIN)

Design and specifications subject to change
without notice.

Dolby noise reduction manufactured under license from Dolby

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Laboratories Licensing Corporation.

MINI Hi-Fi COMPONENT SYSTEM
SONY[®]



SAFETY CHECK-OUT

After correcting the original service problem, perform the following safety check before releasing the set to the customer:

Check the antenna terminals, metal trim, "metallized" knobs, screws, and all other exposed metal parts for AC leakage. Check leakage as described below.

LEAKAGE TEST

The AC leakage from any exposed metal part to earth ground and from all exposed metal parts to any exposed metal part having a return to chassis, must not exceed 0.5 mA (500 microamperes). Leakage current can be measured by any one of three methods.

1. A commercial leakage tester, such as the Simpson 229 or RCA WT-540A. Follow the manufacturers' instructions to use these instruments.
2. A battery-operated AC milliammeter. The Data Precision 245 digital multimeter is suitable for this job.
3. Measuring the voltage drop across a resistor by means of a VOM or battery-operated AC voltmeter. The "limit" indication is 0.75 V, so analog meters must have an accurate low-voltage scale. The Simpson 250 and Sanwa SH-63Trd are examples of a passive VOM that is suitable. Nearly all battery operated digital multimeters that have a 2 V AC range are suitable. (See Fig. A)

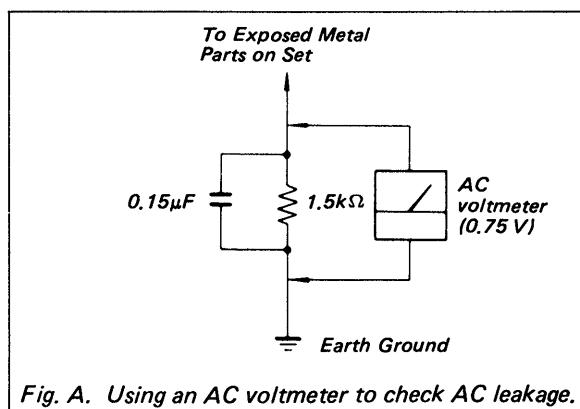
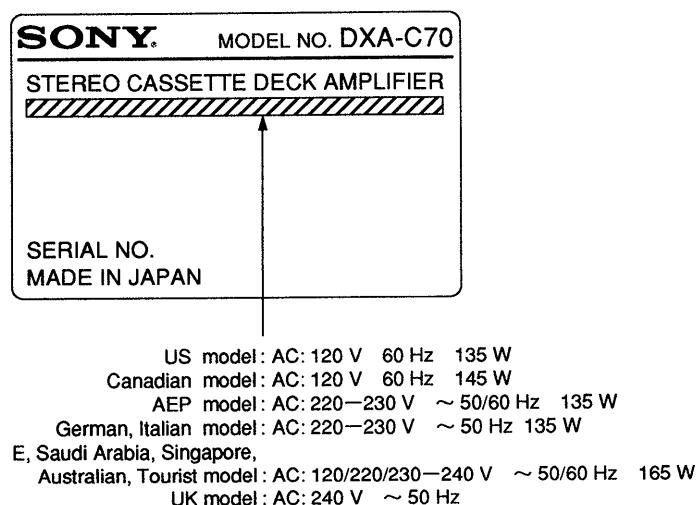


Fig. A. Using an AC voltmeter to check AC leakage.



SAFETY-RELATED COMPONENT WARNING!!

COMPONENTS IDENTIFIED BY MARK OR DOTTED LINE WITH MARK ON THE SCHEMATIC DIAGRAMS AND IN THE PARTS LIST ARE CRITICAL TO SAFE OPERATION. REPLACE THESE COMPONENTS WITH SONY PARTS WHOSE PART NUMBERS APPEAR AS SHOWN IN THIS MANUAL OR IN SUPPLEMENTS PUBLISHED BY SONY.

ATTENTION AU COMPOSANT AYANT RAPPORT À LA SÉCURITÉ!

LES COMPOSANTS IDENTIFIÉS PAR UNE MARQUE SUR LES DIAGRAMMES SCHÉMATIQUES ET LA LISTE DES PIÈCES SONT CRITIQUES POUR LA SÉCURITÉ DE FONCTIONNEMENT. NE REMPLACER CES COMPOSANTS QUE PAR DES PIÈCES SONY DONT LES NUMÉROS SONT DONNÉS DANS CE MANUEL OU DANS LES SUPPLÉMENTS PUBLIÉS PAR SONY.

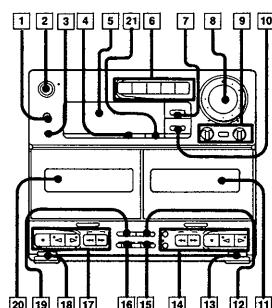
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SECTION 1 GENERAL

This section is extracted
from instruction manual.

A



Parts Identification

Amplifier/Cassette Deck Section

A

Amplifier

- 1 HEADPHONES jack (stereo minijack)
- 2 SYSTEM POWER switch and ON/STANDBY indicator
The indicator remains lit as long as the AC power cord is connected to a wall outlet.
- 3 DISPLAY button
- 4 EFFECT button
- 5 Display window
- 6 Function buttons and indicators
 - VIDEO
 - TAPE
 - MD/DAT
 - CD
 - TUNER
- 7 PRESET button
- 8 VOLUME control
- 9 Dynamic Bass System (DBS) controls and indicator
 - LEVEL control
 - FREQ (frequency) control
- 10 P. FILE (Personal File) button

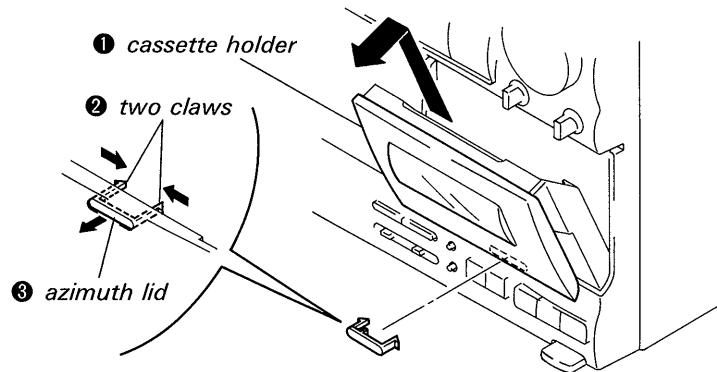
Cassette Deck

- 11 Cassette holder (deck B)
- 12 CD SYNCHRO button (49, 52)
- 13 △ Eject button (deck B)
- 14 Tape operation buttons (for deck B)
 - : Stop button
 - >: Forward play button and indicator
 - <: Reverse play button and indicator
 - AMS ▲◀▶: Fast winding buttons
 - II PAUSE: Pause button and indicator
 - REC: Recording button and indicator
- 15 DOLBY NR (Dolby Noise Reduction) selector
- 16 DIRECTION mode selector
- 17 Tape operation buttons (for deck A)
 - : Stop button
 - >: Forward play button and indicator
 - <: Reverse play button and indicator
 - AMS ▲◀▶: Fast winding buttons
- 18 △ Eject button (deck A)
- 19 HIGH SPEED DUBBING button
- 20 Cassette holder (deck A)
- 21 KARAOKE button (E, Saudi Arabia, Singapore, Australian, Tourist models)

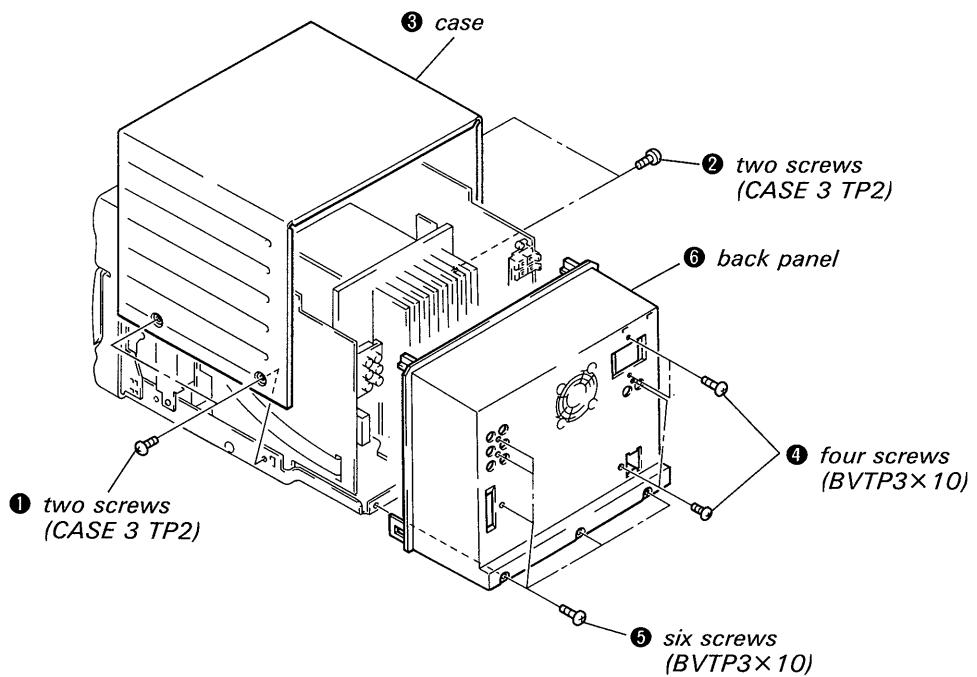
SECTION 2 DISASSEMBLY

NOTE: Follow the disassembly procedure in the numerical order given.

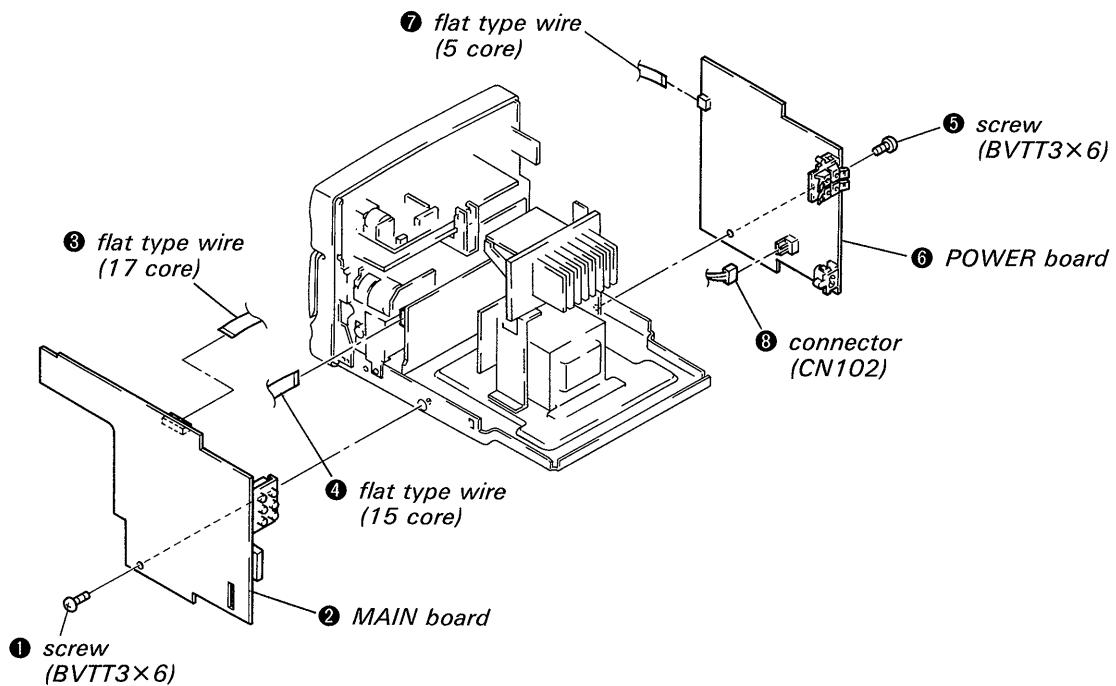
2-1. CASSETTE HOLDER, AZIMUTH LID



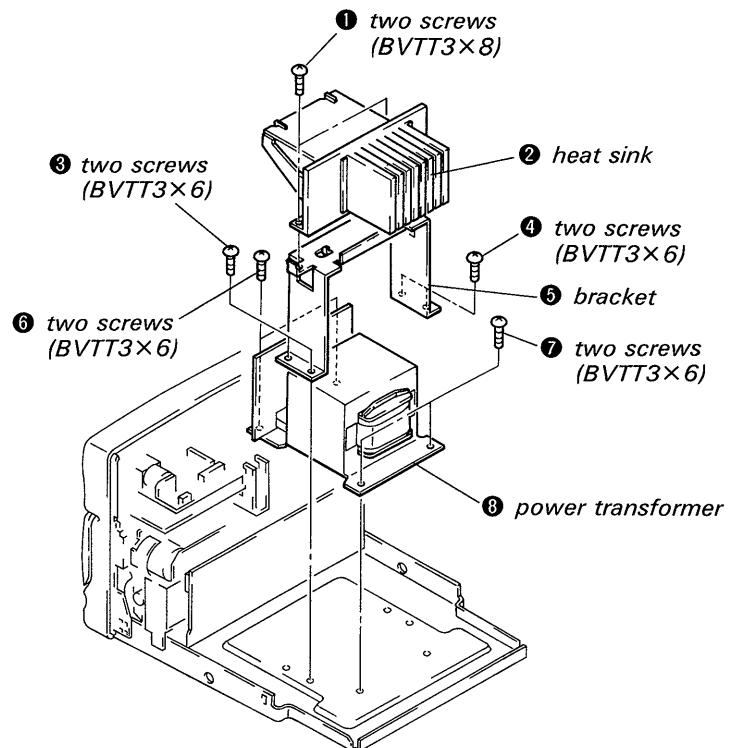
2-2. CASE, BACK PANEL



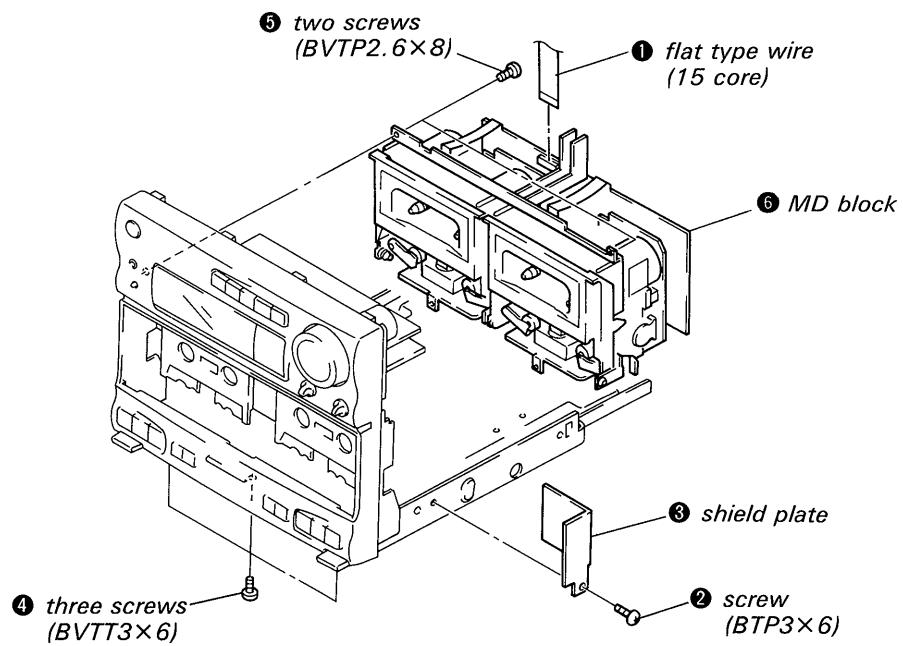
2-3. MAIN/POWER BOARDS



2-4. POWER TRANSFORMER



2-5. MD BLOCK



SECTION 3 MECHANICAL ADJUSTMENTS

PRECAUTION

1. Clean the following parts with a denatured alcohol moistened swab:

record/playback head	pinch roller
erase head	rubber belt
capstan	idler
2. Demagnetize the record/playback head with a head demagnetizer.
3. Do not use a magnetized screwdriver for the adjustment.
4. After the adjustments, apply suitable locking compound to the parts adjusted.
5. The adjustment should be performed with the rated power supply voltage unless otherwise noted.

• Torque Measurement

Torque	Torque meter	Meter reading
Forward	CQ-102C	35 to 60g · cm (0.49 to 0.83oz · inch)
Forward back tension	CQ-102C	2 to 6g · cm (0.028 to 0.08oz · inch)
Reverse	CQ-102RC	35 to 60g · cm (0.49 to 0.83oz · inch)
Reverse back tension	CQ-102RB	2 to 6g · cm (0.028 to 0.08oz · inch)
FF/REW	CQ-201B	70 to 110g · cm (0.98 to 1.52oz · inch)

SECTION 4 ELECTRICAL ADJUSTMENTS

DECK SECTION

1. The adjustment should be performed in the publication. (Be sure to make playback adjustment at first.)
2. The adjustment and measurement should be performed for both L-CH and R-CH.
 - Switch position
DOLBY NR switch : OFF
3. Short the connector TP401 (test mode), before electrical adjustments.

• Test Tape

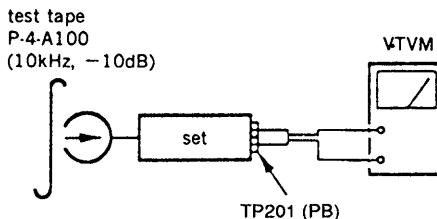
Tape	Contents	Use
P-4-A100	10kHz, -10dB	Head Azimuth Adjustment
P-4-L300	315Hz, 0dB	Level Adjustment
WS-48B	3kHz, 0dB	Tape Speed Adjustment

Record/Playback Head Azimuth Adjustment

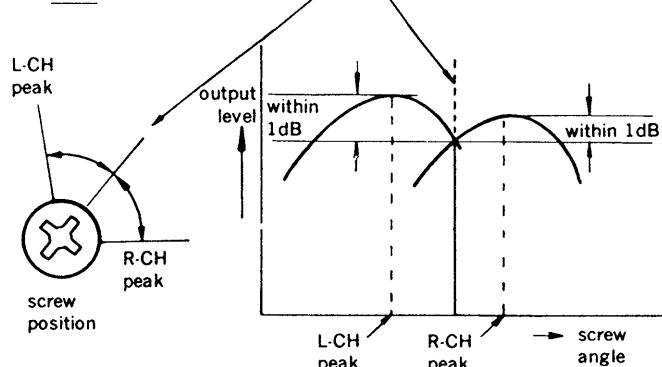
DECK A **DECK B**

Procedure:

1. Forward Playback Mode
Reverse Playback Mode

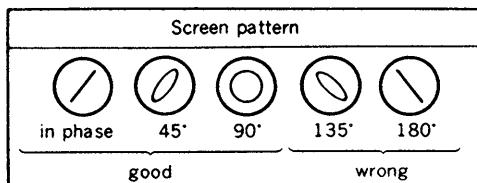
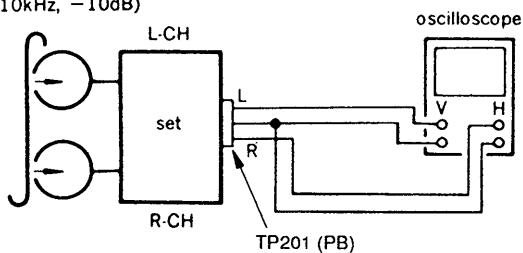


2. Turn the adjustment screw for the maximum output levels. If these levels do not match, turn the adjustment screw until both of output levels match together within 1dB.



3. Playback Mode

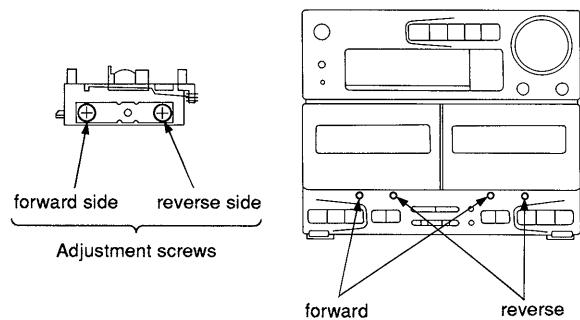
test tape
P-4-A100
(10kHz, -10dB)



4. Change the review playback mode and repeat the steps 1 to 3.
5. After the adjustment, lock the adjustment screw with suitable locking compound.

Adjustment Location :

—record/playback head (deck A and B)

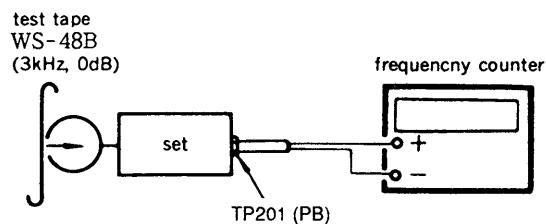


Tape Speed Adjustment **DECK A** **DECK B**

Procedure :

- Perform high speed adjustment before normal speed adjustment.

Mode : playback



Speed	Deck	Adjustment	Frequency counter
※ High	A	RV72	5,970 to 6,030Hz
	B	RV72	
Normal	A	RV71	2,985 to 3,015Hz
	B	RV71	

※ Continue to press HIGH SPEED DUBBING switch (S357) in playback mode : High speed playback.

Frequency difference between the beginning and the end of the tape should be within $\pm 3\%$.

Frequency difference between deck A and deck B the beginning of the tape should be within 1.5%.

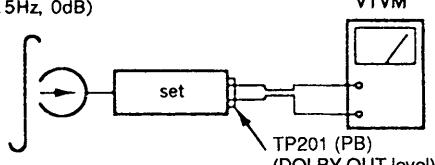
Adjustment Location: MD (AX) and MD (BX) boards.

Playback Level Adjustment **DECK A** **DECK B**

Procedure :

Mode : playback

test tape
P-4-L300
(315Hz, 0dB)



Deck A is RV11 (L-CH) and RV21 (R-CH), deck B is RV11 (L-CH) and RV21 (R-CH) so that adjustment within adjustment level as follows.

Adjustment Level :

LINE OUT level : $-12.7 \pm 1.0\text{dB}$ (0.16 to 0.20)

Level Difference between Channels : within 0.5dB

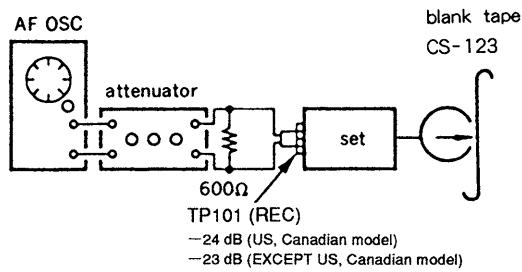
Confirm the DOLBY OUT level does not change in playback mode while changing the mode from playback to stop several times.

Adjustment Location : MD (AX) and MD (BX) boards

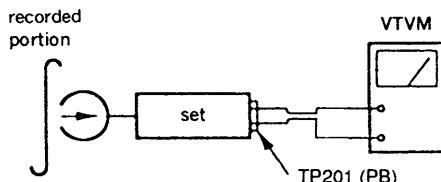
Record Bias Adjustment DECK B

Procedure :

1. record mode



2. playback mode



Confirm playback the signal recorded in step 1 become adjustment level as follows.

If these levels do not adjustment level, adjust the RV12 (L-CH) and RV22 (R-CH) to repeat step 1 and 2.

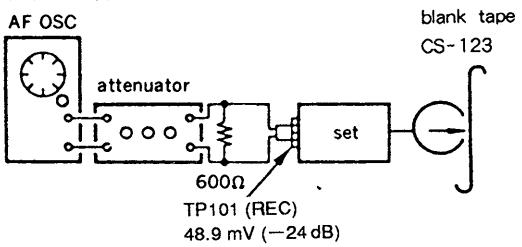
Adjustment level : Playback output of 315Hz to playback output of 10kHz : $0\text{dB} \pm 0.5\text{dB}$.

Adjustment Location : MD (BX) board

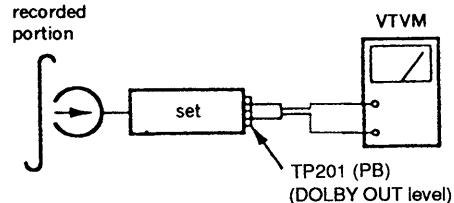
Record Level Adjustment DECK B

Procedure :

1. record mode



2. playback mode



Confirm playback the signal recorded in step 1 become adjustment level as follows.

If these levels do not adjustment level, adjust the RV201 (L-CH) and RV301 (R-CH) to repeat step 1 and 2.

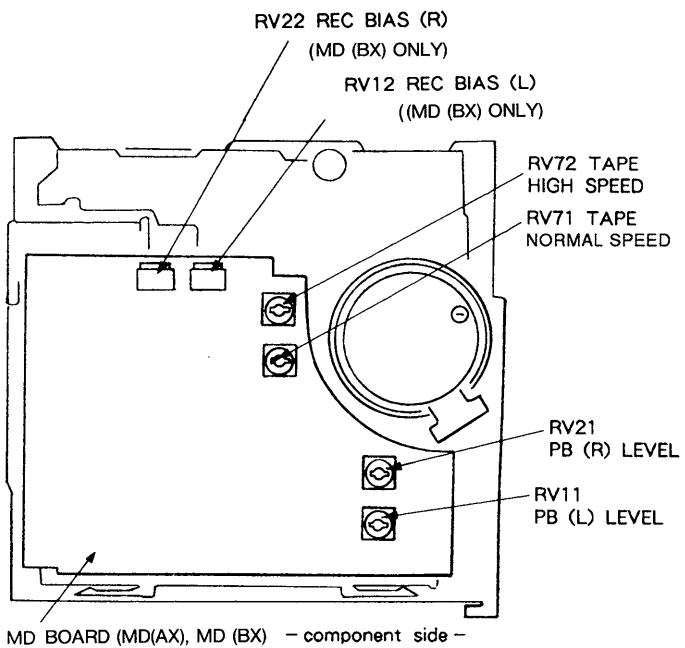
Adjustment Level :

DOLBY OUT level : $-24\text{dB} \pm 0.5\text{dB}$ (0.046 to 0.051V)

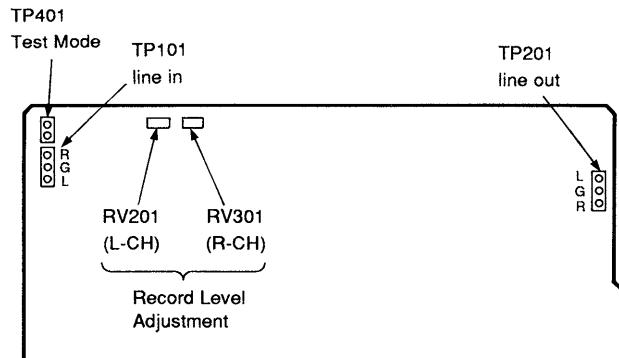
Adjustment Location : TC MAIN board

Adjustment Location :

Mechanism deck - rear side -



TC MAIN board — component side —



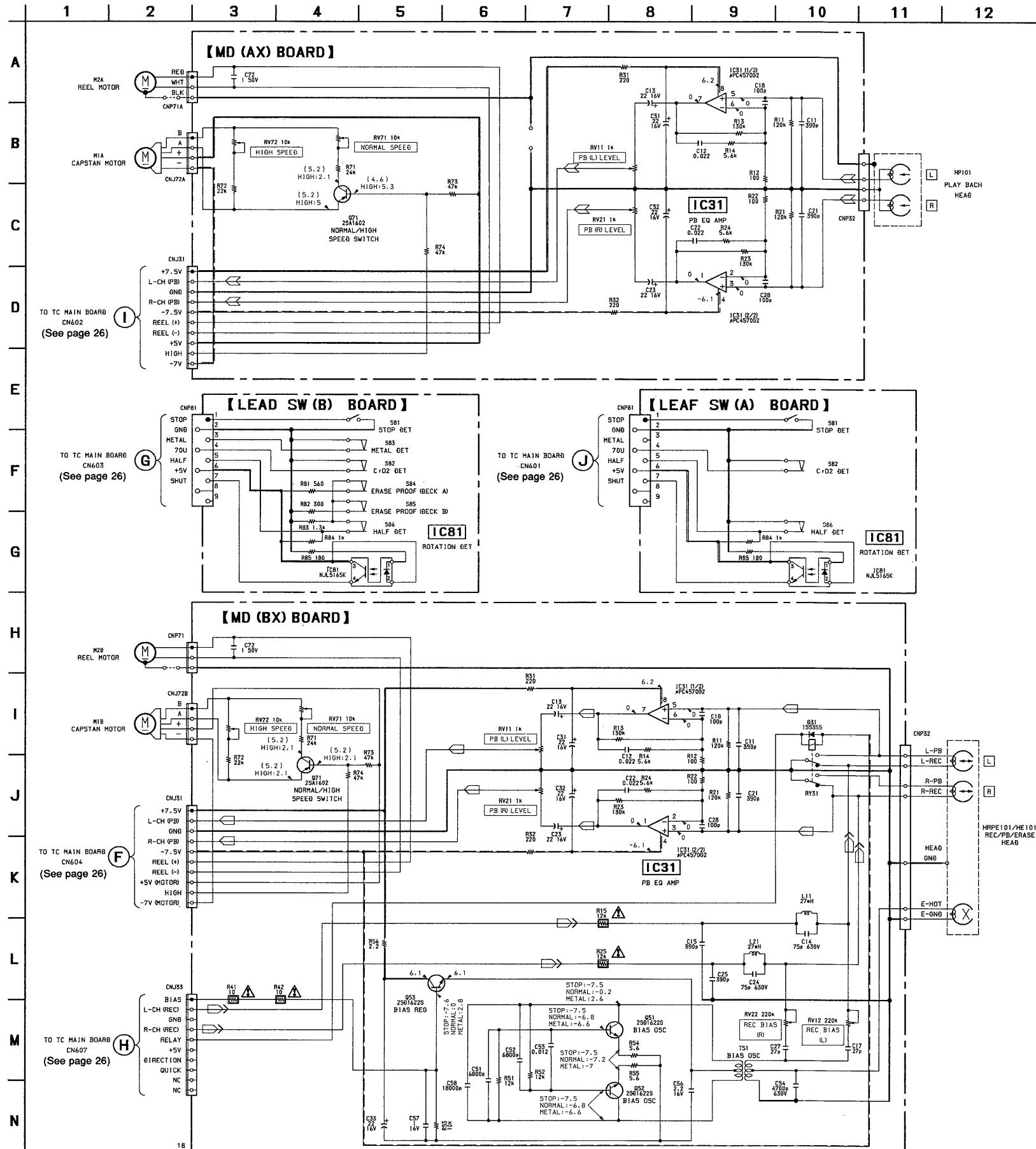
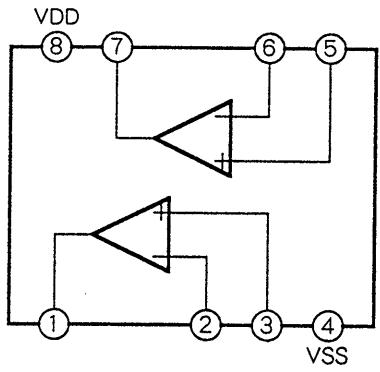
SECTION 5 DIAGRAMS

5-1. IC PIN FUNCTION DESCRIPTION

• IC821 TMP87CC78F

Pin. No.	Name	I/O	Description
1	VDD		+5V
2	FUNC.A		
3	FUNC.B	O	Function switching; VIDEO (PHONO), TAPE, MD/DAT, CD/TUNER
4	KARAOKE	O	ON/OFF of KARAOKE PON
5	SURR.A	O	Level switching of Surround or DSP
6	SURR.B		
7	CD-OFF	O	ON/OFF of CD
8	NC		
9			
10	C90/C70	I	Model identification L for DXA-C70 or DXA-J570C, H for DXA-C90, Presence of PHONE
11	PHONO/VIDEO	I	L for PHONO not provided, H for PHONO provided
12	KARAOKE-PON	I	Presence of KARAOKE PON
13	NC		
14	KEY0	I	Input of keyboard switch
15	KEY1	I	Input of keyboard switch
16	NC		
17	SPE-IN-L	I	Input of spectrum analyzer level 63k, 160k, 400k, 1k (Hz)
18	SPE-IN-R	I	Input of spectrum analyzer level 2.5k, 6.3k, 16k (Hz)
19	NC		
20	VOL.UP	O	UP/DOWN of volume
21	VOL.DOWN	O	UP/DOWN of volume
22	VSS		0V (GND)
23	AVSS		Analog reference GND for A/D conversion
24	AVREF		Analog ref. voltage for A/C conversion
25	VDD		+5V
26	STOP	I	At L, STOP mode becomes active to stop oscillation circuit, CPU core and peripheral circuits, thus reducing power consumption.
27	GND	I	Fixed to GND
28	POWER-ON/OFF	O	L when the system power is turned on.
29	MUTE	O	Muting of audio signal at L
30	VSS		0V (GND)
31	XI	I	High frequency oscillator connect pins
32	XO	O	
33	NRST	I	RESET signal input
34	LED	O	LED lighting ports
39			
40	NC		
41			
42	GEQ-CLK	O	Clock output to graphic equalizer
43	GEQ-DATA	O	Serial data output to graphic equalizer
44	NC		
45	SPE-A		
46	SPE-B	O	Band switching of spectrum analyzer circuit
47	NC		
48	AUBUS-OUT	O	AU bus output
49	AUBUS-IN	I	AU bus input
50	VKK		Power for fluorescent display tube driving
51	G13		
63	G1		
64	P38		
82	P19	O	8-bit highly durable output ports for fluorescent display tube
83	P18		
98	P3	I/O	8-bit highly durable I/O ports for fluorescent display tube
99	P2		
100	P1	I/O	2-bit highly durable I/O ports for fluorescent display tube

5-2. SCHMATIC DIAGRAM —MD Section—

IC31 μ PC4570G2

Note:

- All capacitors are in μ F unless otherwise noted. pF: $\mu\mu$ F 50WV or less are not indicated except for electrolytics and tantalums.
- All resistors are in Ω and $1/4$ W or less unless otherwise specified.
- \triangle : internal component.
- \blacksquare : nonflammable resistor.
- \mathfrak{W} : fusible resistor.

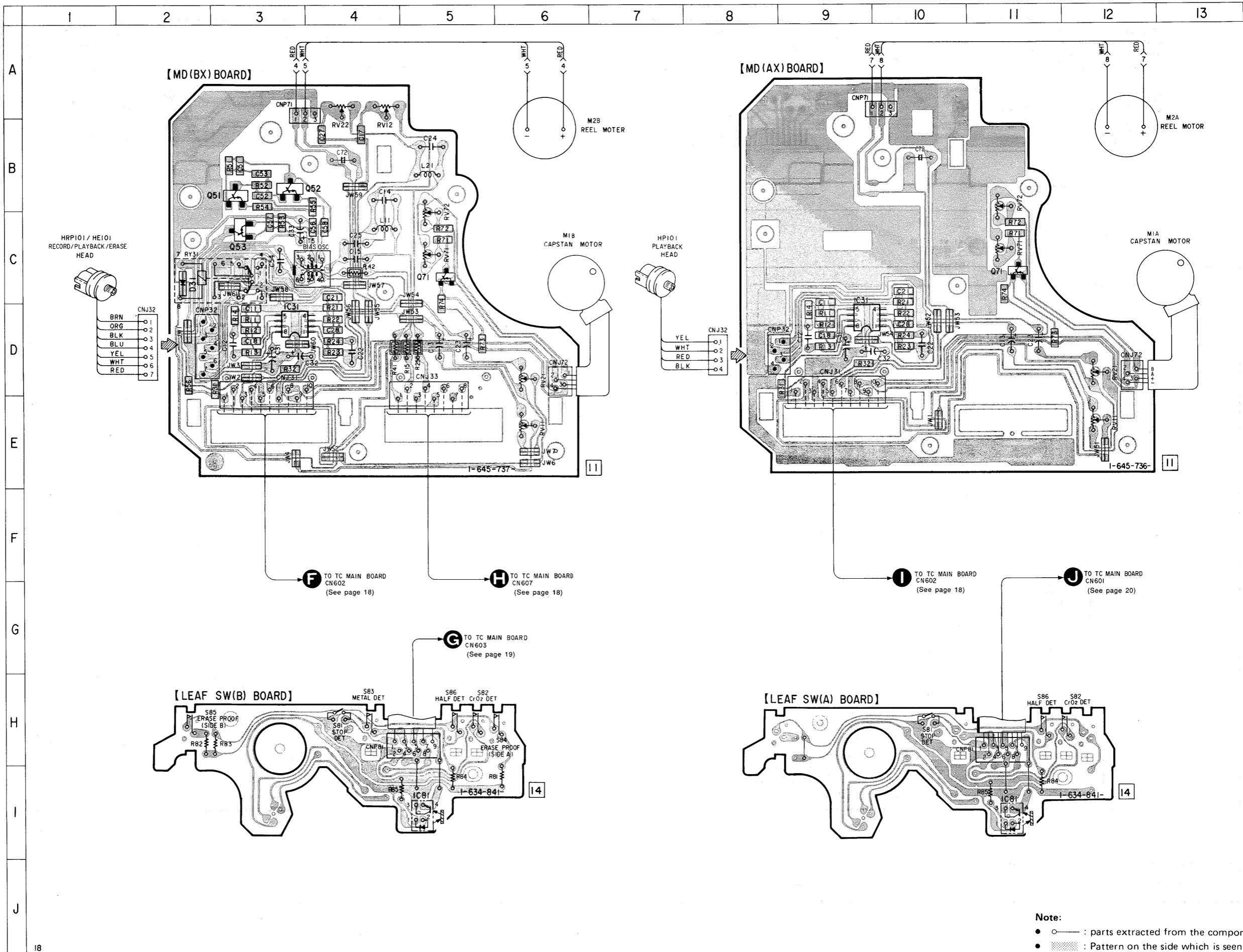
Note:
The components identified by mark \triangle or dotted line with mark \triangle are critical for safety. Replace only with part number specified.

Note:
Les composants identifiés par une marque \triangle sont critiques pour la sécurité. Ne les remplacer que par une pièce portant le numéro spécifié.

- --- : B+ Line
- --- : B- Line
- \blacksquare : adjustment for repair.
- Voltage is dc with respect to ground under no-signal conditions.
- no mark: PLAY
(\square): REC
- Voltages are taken with a VOM (Input Impedance 10M Ω). Voltage variations may be noted due to normal production tolerances.
- Signal path.
 \nearrow : PB (DECK A)
 \square : PB (DECK B)
 $\square\square$: REC (DECK B)

5-3. PRINTED WIRING BOARDS –MD Section–

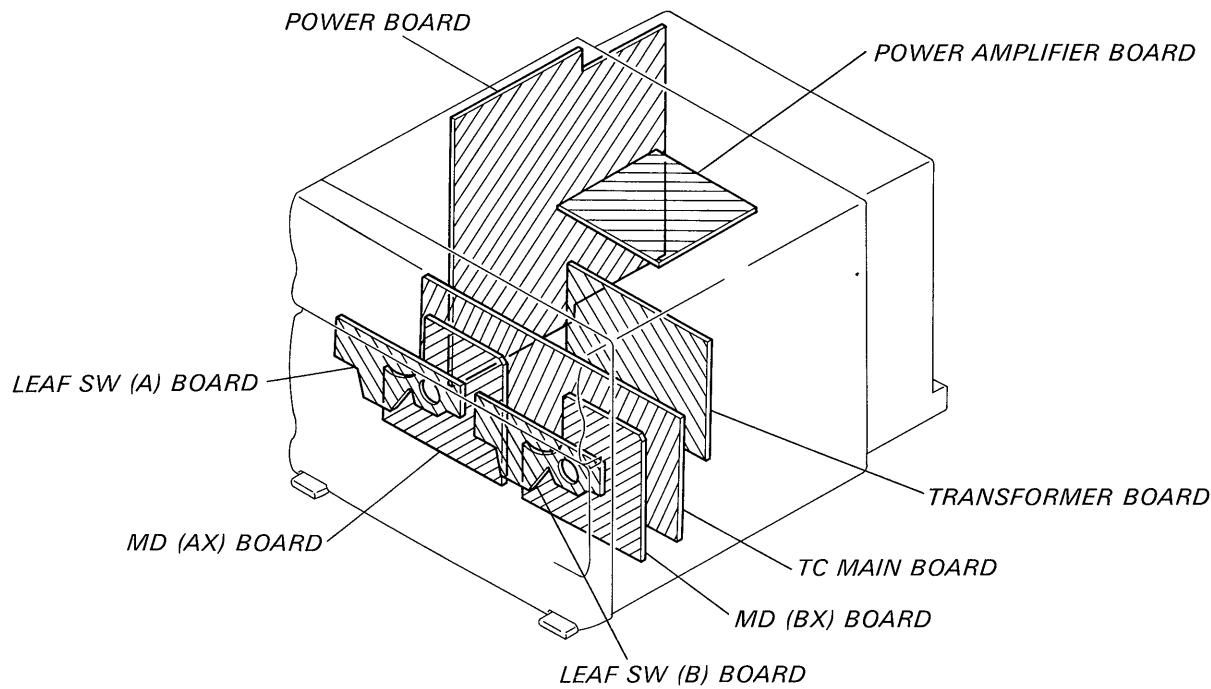
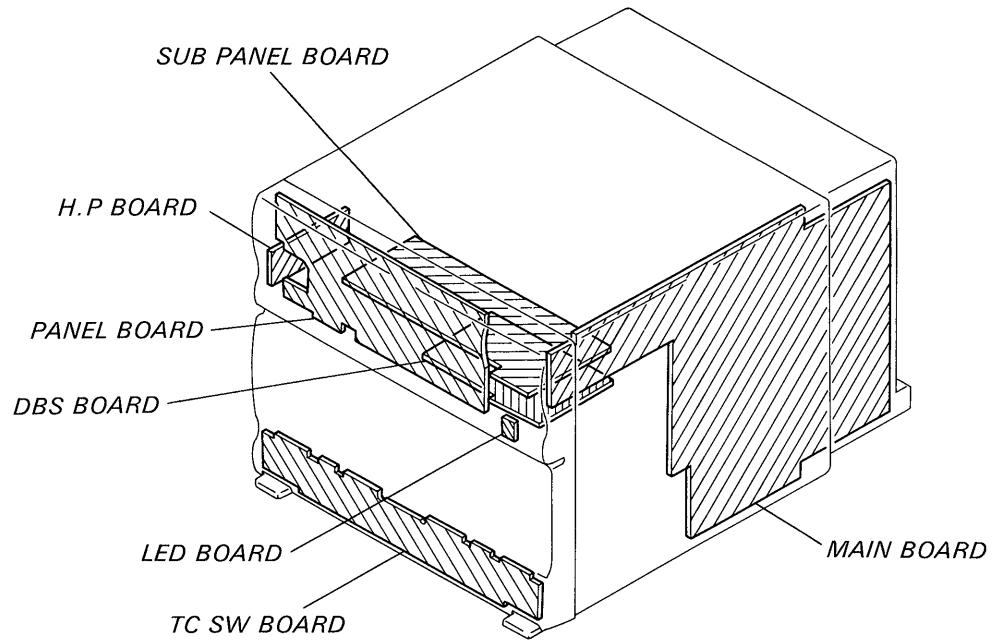
• Semiconductor Location	
Ref. No.	Location
D31	C-2
IC31A	D-9
IC31B	D-3
IC81A	I-11
IC81B	I-5
Q71A	C-11
Q71B	C-5



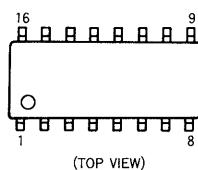
Note:

- : parts extracted from the component side.
- : Pattern on the side which is seen.

5-4. CIRCUIT BOARDS LOCATION

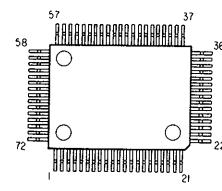


5-5. SEMICONDUCTOR LEAD LAYOUTS

CD4052BCM
CD4053BCM

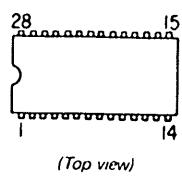
(TOP VIEW)

M50964-260FP

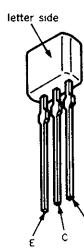


(TOP VIEW)

NJU7305L



(Top view)

2SA-1175-HFE
2SC3623A-LK

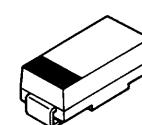
letter side

2SK246-GR3



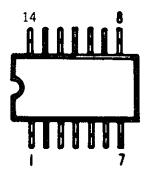
S G D

EC10DS2



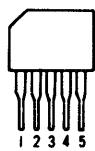
K A

CD4066BCM



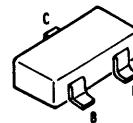
(TOP VIEW)

M51953BL

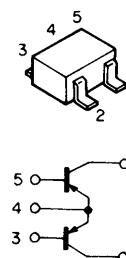
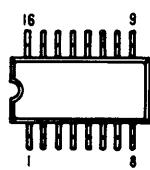


1 2 3 4 5

PST572E

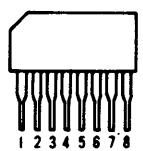
1 : Vcc
2 : GND
3 : Out put2SA1602-F
2SC4154-F
DTA144EK
RN1402
RN2402
RN2404TE85L

XN1114

3 4 5
1 2CXA1101M
CXA1578M

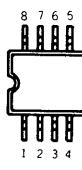
(TOP VIEW)

M5230L-A

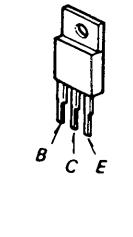


1 2 3 4 5 6 7 8

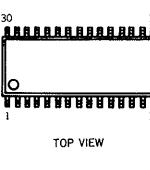
RC4558PS



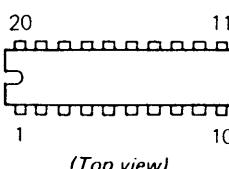
(TOP VIEW)

2SB1094-LK
2SD2012

CXA1331M

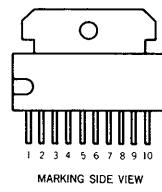


TOP VIEW



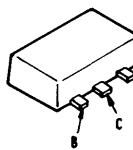
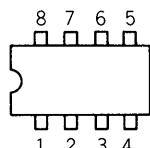
(Top view)

TA7272P

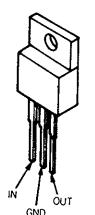


MARKING SIDE VIEW

2SB1122-S

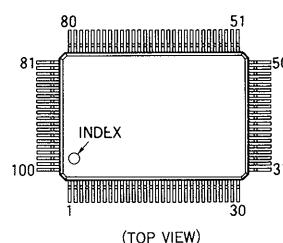
LB1638
M5218AP

(Top view)

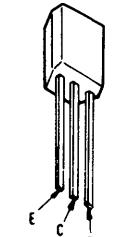
M5F78M07L
M5F79M07L
TA7805S

(Top view)

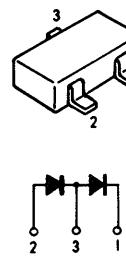
TMP87CC78F-6104



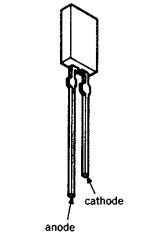
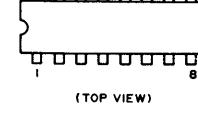
(TOP VIEW)

2SC2603-EF
DTA114ES
DTC114ES

1SS226



2 3 1

SEL4225C-C
SEL4525C-C
SEL4925A-DMC14052BCP
XR1091DCP

(TOP VIEW)

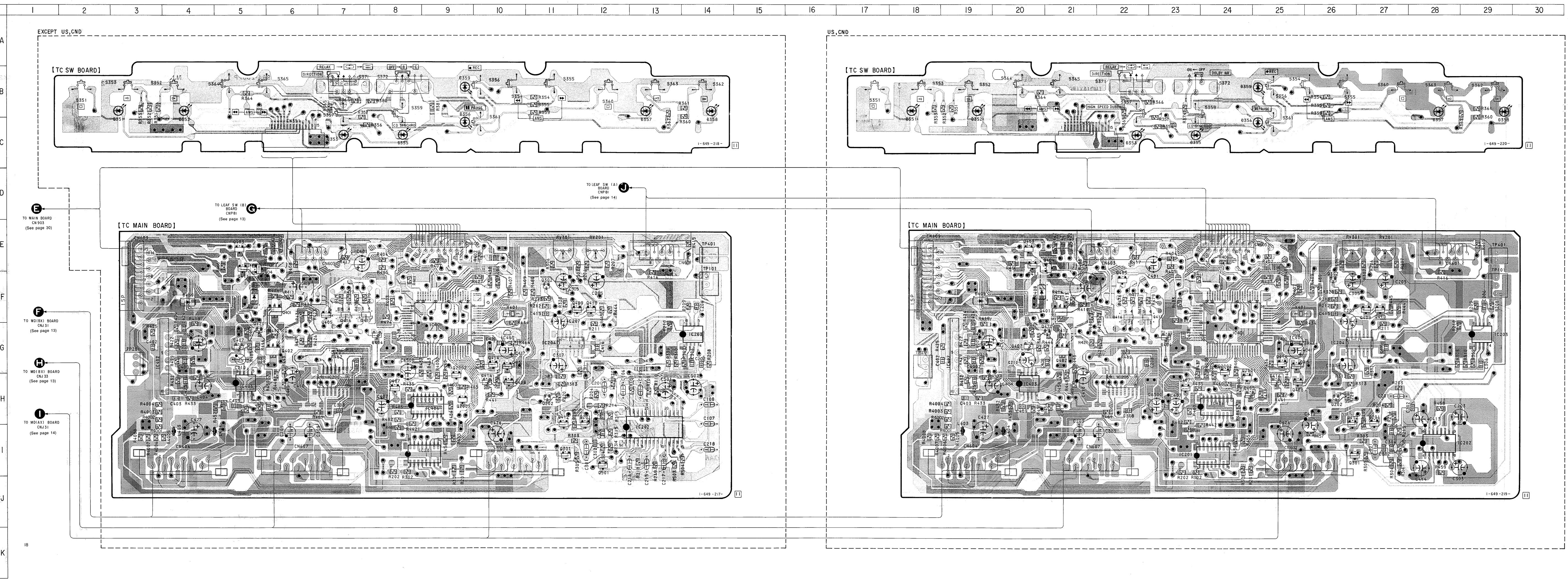
5-6. PRINTED WIRING BOARDS -TC Section-

• See page 15-17 for Circuit Boards Location and Semiconductor Lead Layouts.

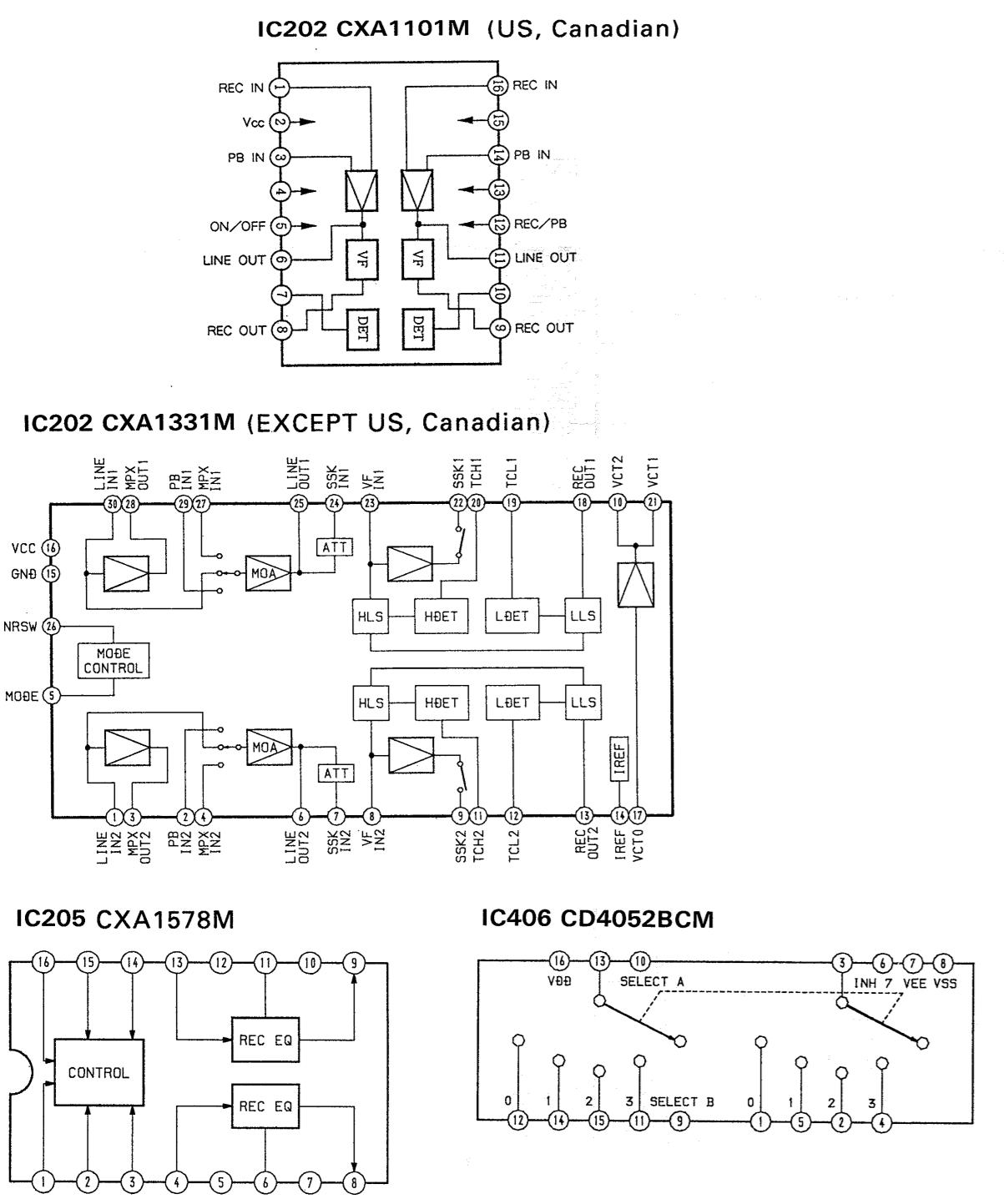
• Semiconductor Location

Ref. No.	Location
D351	B-3
D352	B-4
D353	C-7
D355	C-8
D356	C-9
D357	C-13
D358	C-14
D359	B-9
EXCEPT US,CND	
D404	G-8
D405	G-23
D407	H-24
D408	G-5
D409	G-20
D410	F-5
D411	F-20
D412	F-4
D413	F-19
D416	H-10
IC201	I-8
IC202	I-23
IC203	H-13
IC204	F-14
IC205	G-11
IC401	H-7
IC402	F-9
IC403	G-18
IC404	H-5
IC405	H-20
IC406	H-10
Q201	H-8
Q202	I-12
Q203	I-27
Q204	H-11
Q205	H-26
Q206	I-11
Q207	F-11
Q208	F-26
Q209	F-6
Q210	F-21
Q211	G-6
Q212	G-21
Q213	E-5
Q214	E-20
Q215	F-5
Q216	F-20
Q217	F-7
Q218	F-22
Q219	H-10
Q220	H-25
Q221	F-12
Q222	F-27
Q223	F-5
Q224	F-20
Q225	I-11
Q226	I-26
Q227	G-10
Q228	G-25
Q229	G-10
Q230	F-7
Q231	F-22
Q232	F-7
Q233	F-22
Q234	G-5
Q235	G-20
Q236	I-12
Q237	I-27
Q238	H-9
Q239	H-24
Q240	G-9

Note:
 • ○ : parts extracted from the component side.
 • ● : Through hole.
 • ■ : Pattern on the side which is seen.
 • □ : Pattern of the rear side.



6-7. SCHEMATIC DIAGRAM –TC Section–

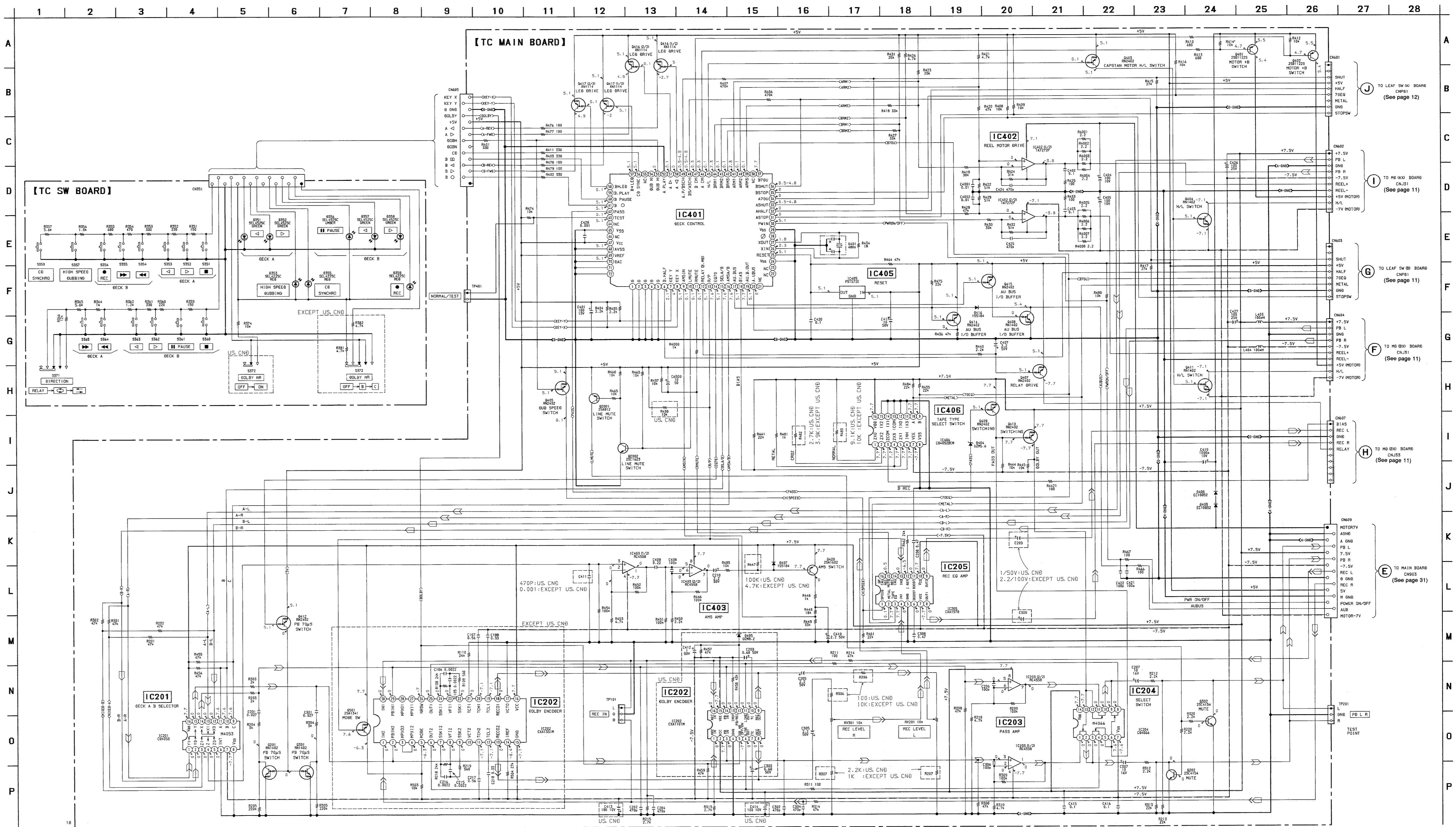


Note:

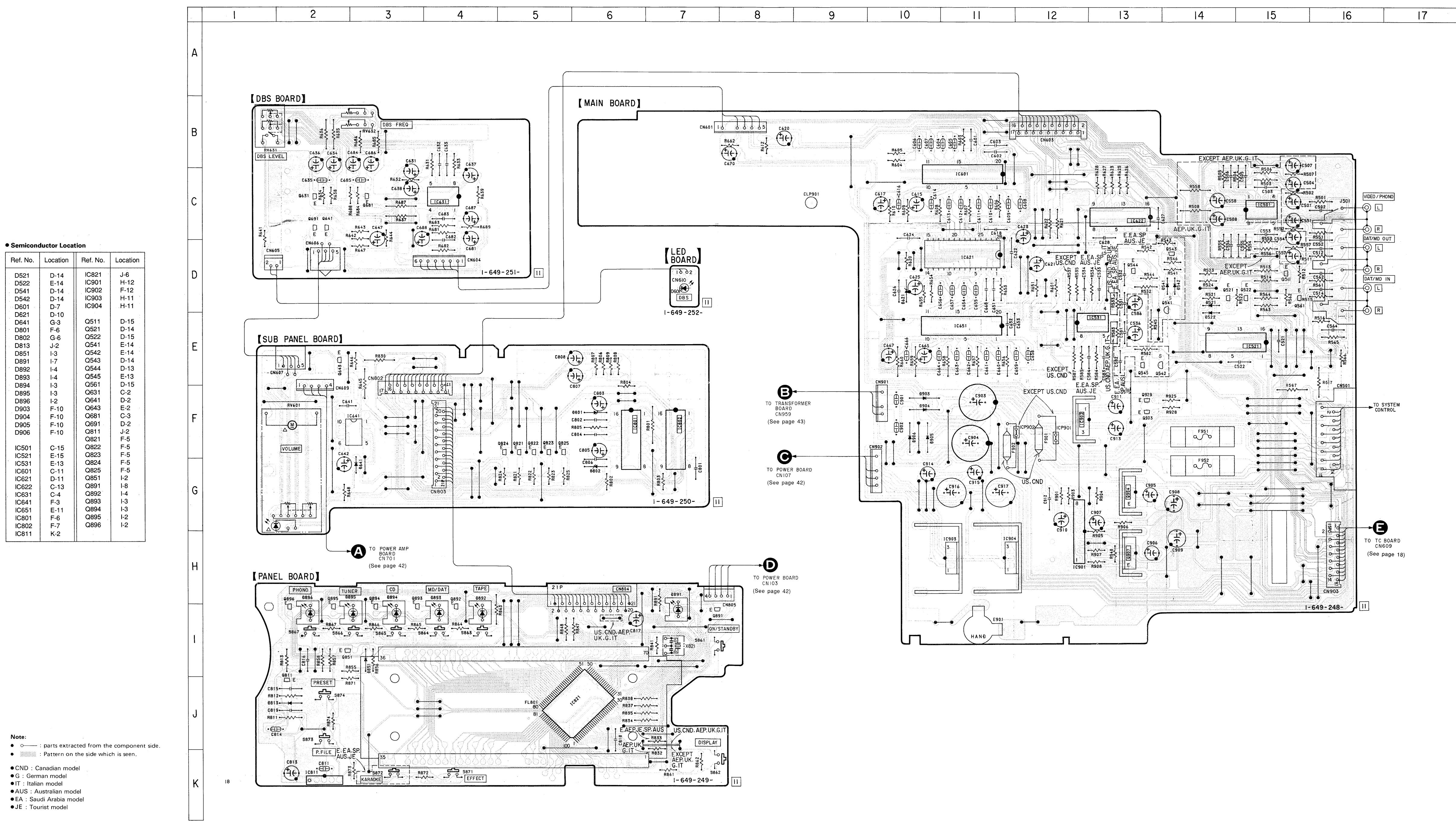
- All capacitors are in μF unless otherwise noted. pF: $\mu\mu\text{F}$
50WV or less are not indicated except for electrolytics and tantalums.
- All resistors are in Ω and $1/4\text{W}$ or less unless otherwise

<p>Note: The components identified by mark  or dotted line with mark  are critical for safety. Replace only with part number specified.</p>	<p>Note: Les composants identifiés par une marque  sont critiques pour la sécurité. Ne les remplacer que par une pièce portant le numéro spécifié.</p>
--	--

- : B+ Line
- : B- Line
- : adjustment for repair.
- Voltage is dc with respect to ground under no-signal conditions.
 no mark: PLAY
 () : REC
- Voltages are taken with a VOM (Input Impedance $10M\Omega$).
 Voltage variations may be noted due to normal production tolerances.
- Signal path.
 - : PB (DECK A)
 - : PB (DECK B)
 - : REC (DECK B)



5-8. PRINTED WIRING BOARDS -MAIN Section- • See page 15-17 for Circuit Boards Location and Semiconductor Lead Layouts.



Note:
 • All capacitors are in μ F unless otherwise noted. pF: μ F 50WV or less are not indicated except for electrolytics and tantalums.
 • All resistors are in Ω and $1/4$ W or less unless otherwise specified.
 • : nonflammable resistor.
 • : fusible resistor.

Note:
 The components identified by mark or dotted line with mark are critical for safety. Replace only with part number specified.

Note:
 Les composants identifiés par une marque sont critiques pour la sécurité. Ne les remplacer que par une pièce portant le numéro spécifié.

• : B+ Line
 • : B- Line
 • : adjustment for repair.
 • Voltage is dc with respect to ground under no-signal conditions.
 • no mark : PLAY
 () : REC
 • Voltages are taken with a VOM (Input Impedance 10M Ω). Voltage variations may be noted due to normal production tolerances.

• Signal path.

: PB (DECK A)

: PB (DECK B)

: REC (DECK B)

• CND : Canadian model

• G : German model

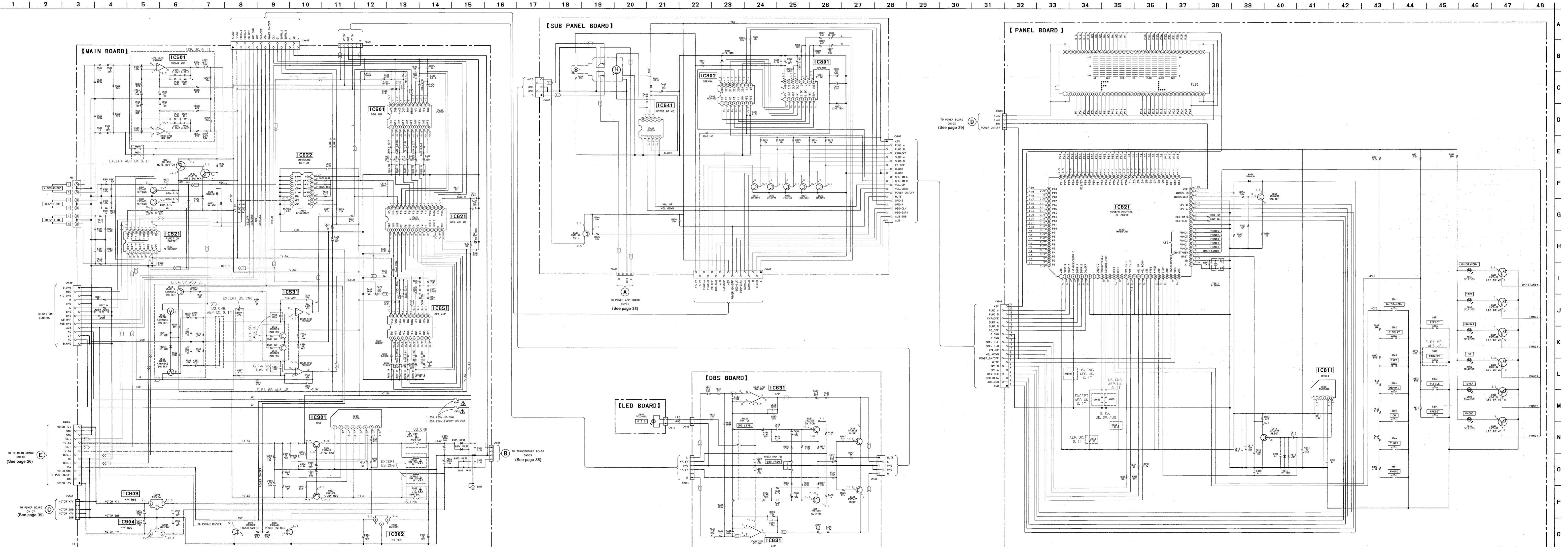
• IT : Italian model

• AUS : Australian model

• EA : Saudi Arabia model

• JE : Tourist model

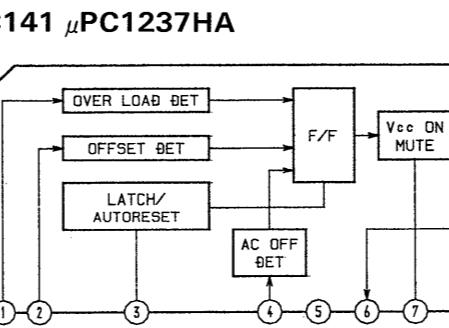
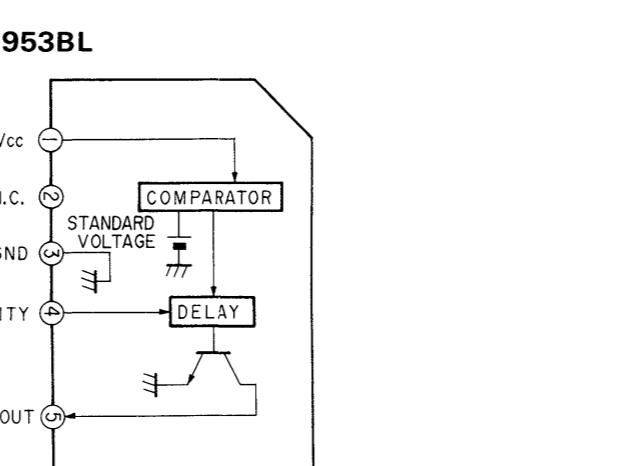
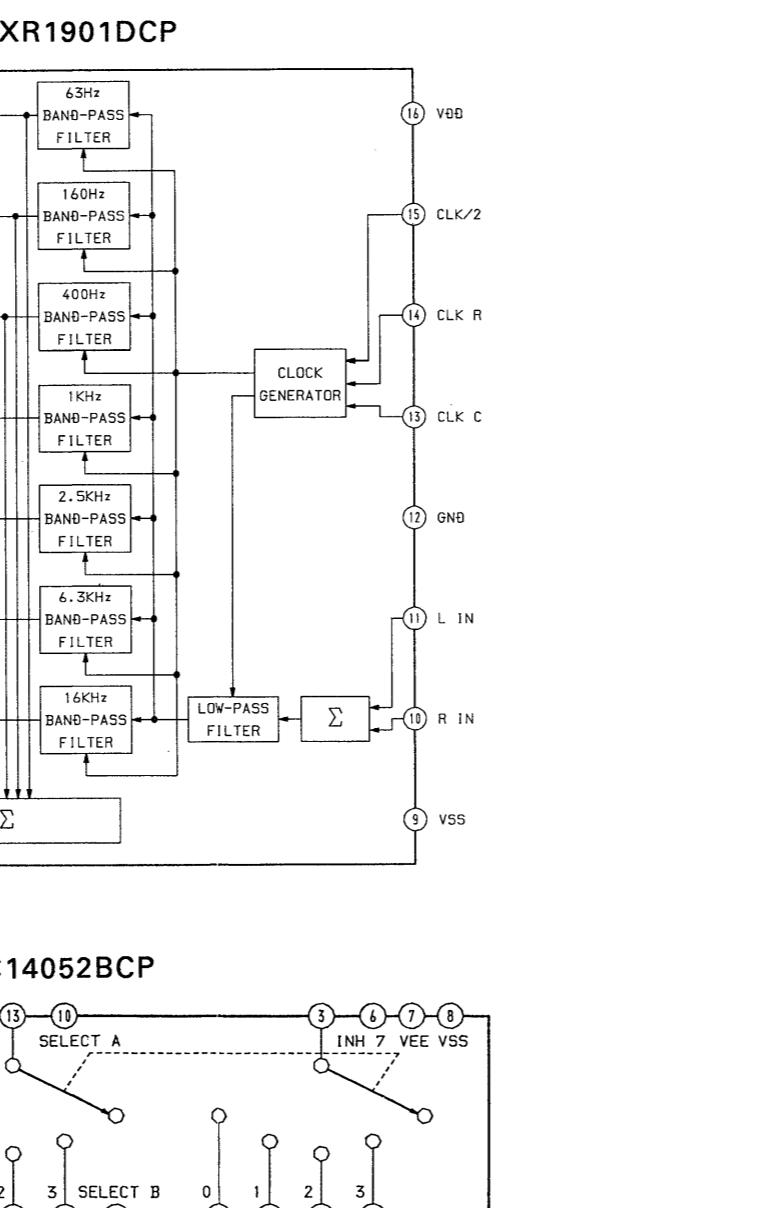
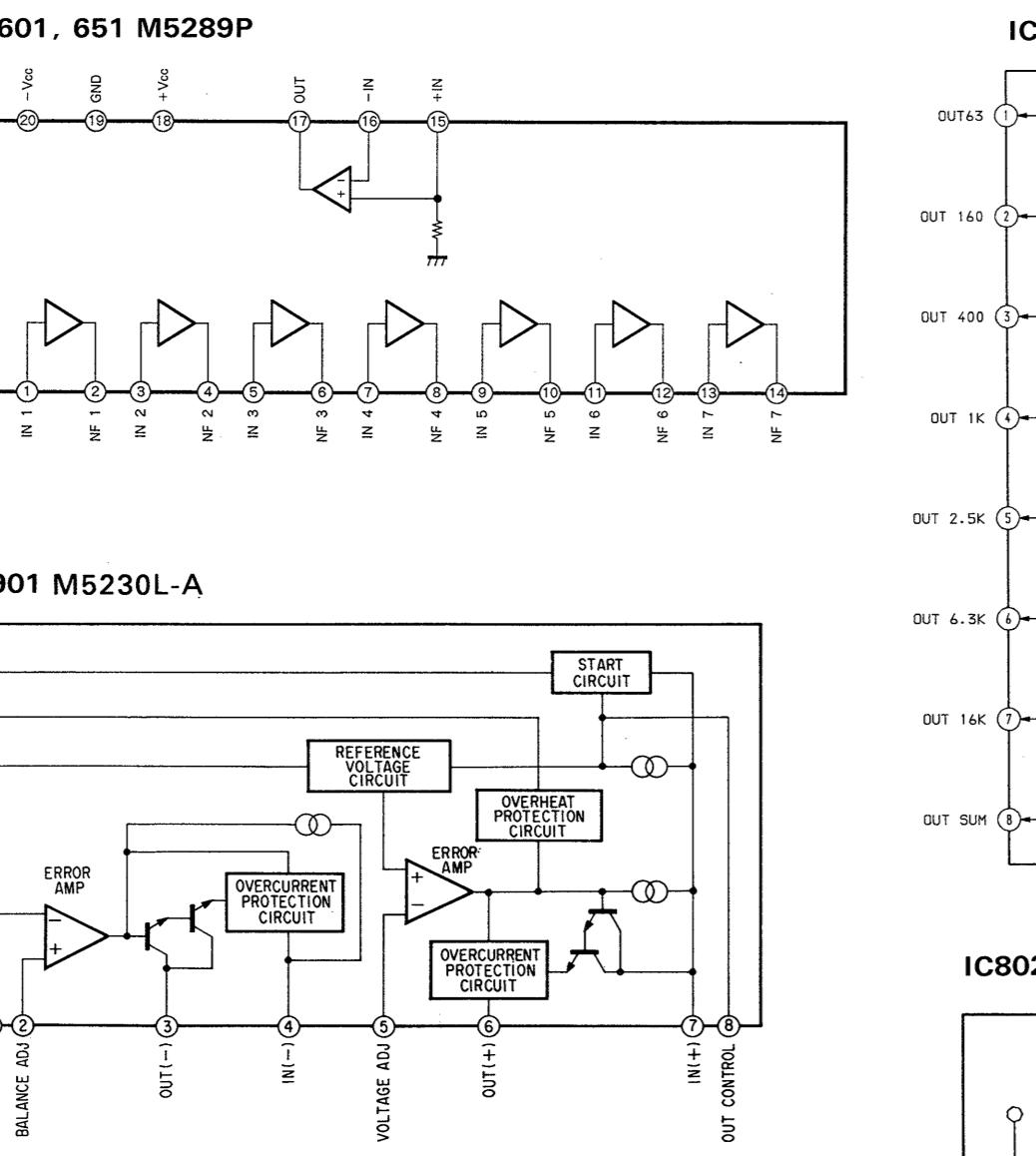
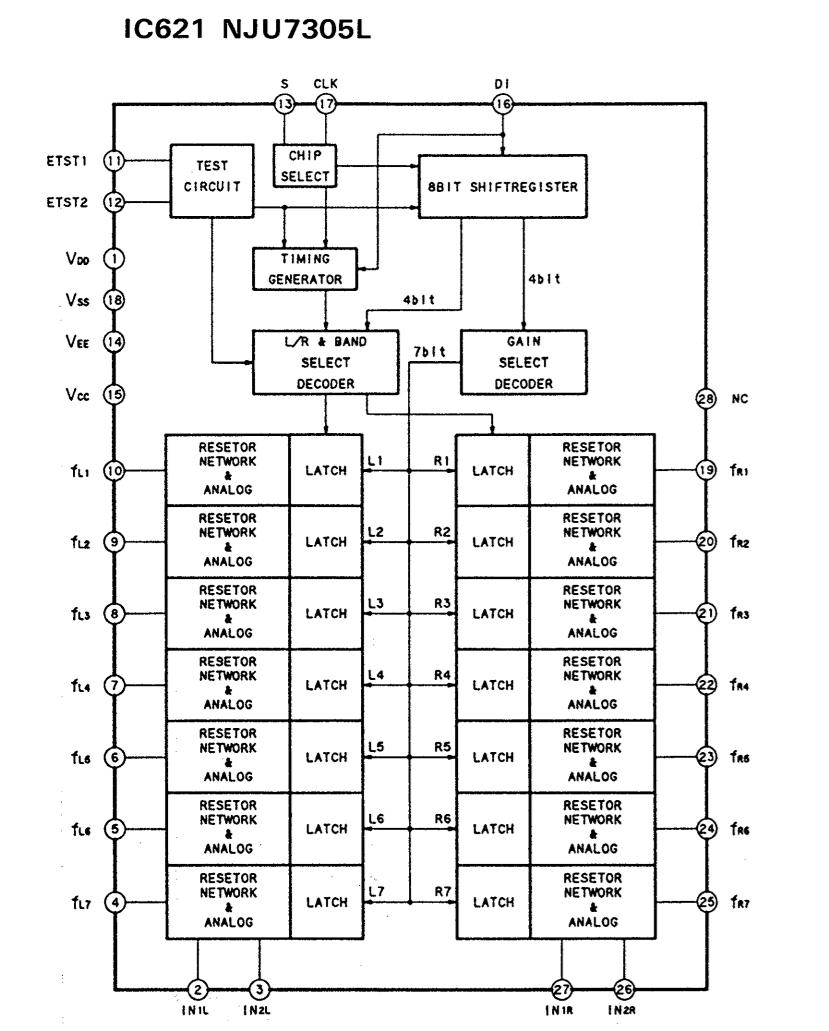
5-9. SCHEMATIC DIAGRAM -MAIN Section- • See page 36 for IC Block Diagrams.



Notes:
 • All capacitors are in μ F unless otherwise noted, pF: μ F
 50WV or less are not indicated except for electrolytics
 and tantalums.
 • All resistors are in Ω and $\frac{1}{4}$ W or less unless otherwise
 specified.
 • : internal component.
 • : nonflammable resistor.
 • : fusible resistor.

Notes:
 The components identified by mark or dotted line with mark are critical for safety. Replace only with part number specified.
 : B+ Line
 : B- Line
 : adjustment for repair.
 • Voltage is dc with respect to ground under no-signal
 conditions.
 no mark : PLAY
 () : REC
 • Voltages are taken with a VOM (Input Impedance 1OM).
 Voltage variations may be noted due to normal produc-
 tion tolerances.
 • Signal path.
 : PB (DECK A)
 : PB (DECK B)

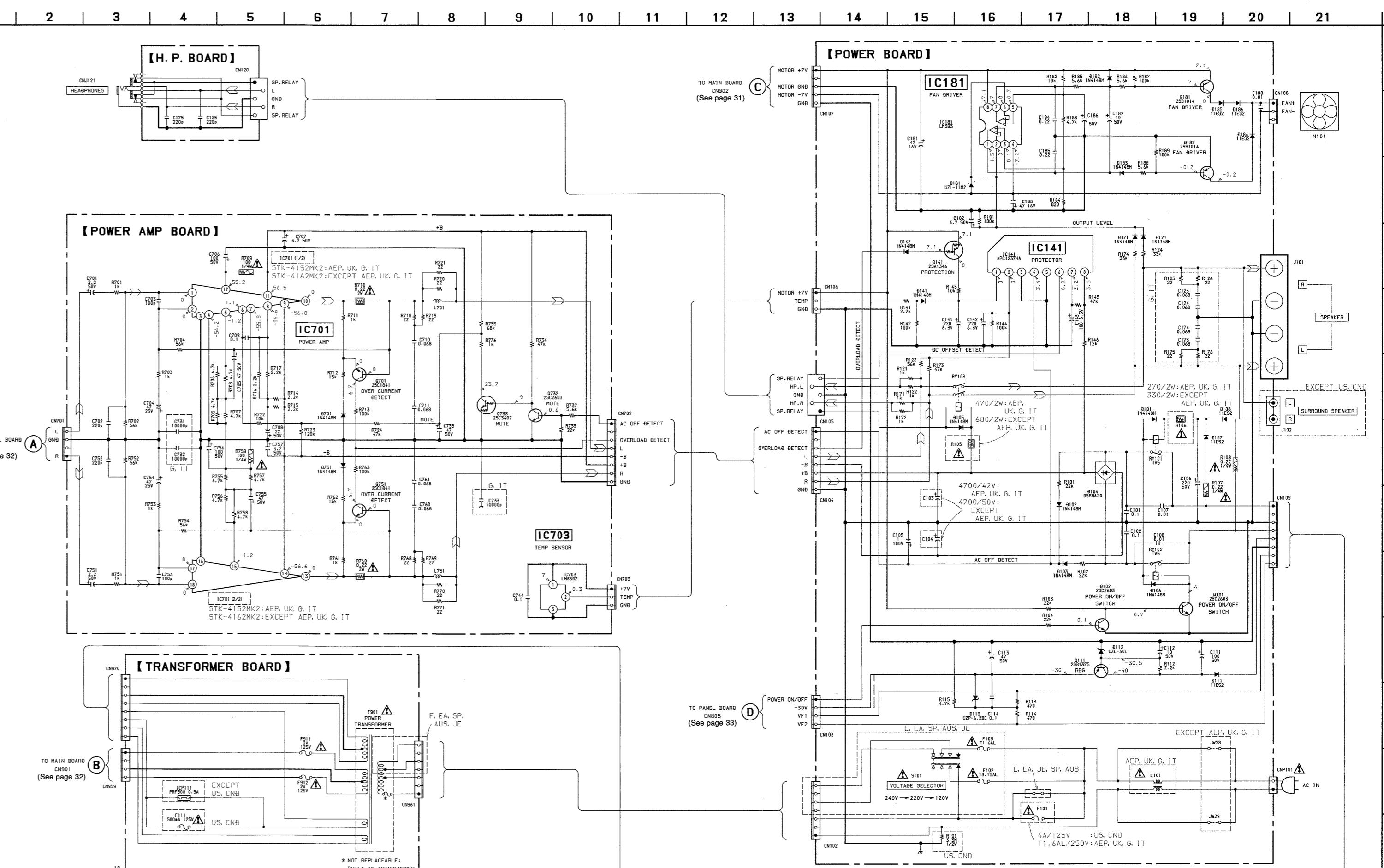
IC Block Diagrams (MAIN Section)



Notes:
 All capacitors are in μ F unless otherwise noted, pF: μ F
 50WV or less are not indicated except for electrolytics
 and tantalums.
 • All resistors are in Ω and $\frac{1}{4}$ W or less unless otherwise
 specified.
 • : internal component.
 • : nonflammable resistor.
 • : fusible resistor.

Notes:
 The components identified by mark or dotted line with mark are critical for safety. Replace only with part number specified.
 : B+ Line
 : B- Line
 : adjustment for repair.
 • Voltage is dc with respect to ground under no-signal
 conditions.
 no mark : PLAY
 () : REC
 • Voltages are taken with a VOM (Input Impedance 1OM).
 Voltage variations may be noted due to normal produc-
 tion tolerances.
 • Signal path.
 : PB (DECK A)
 : PB (DECK B)

5-10. SCHEMATIC DIAGRAM —POWER Section—



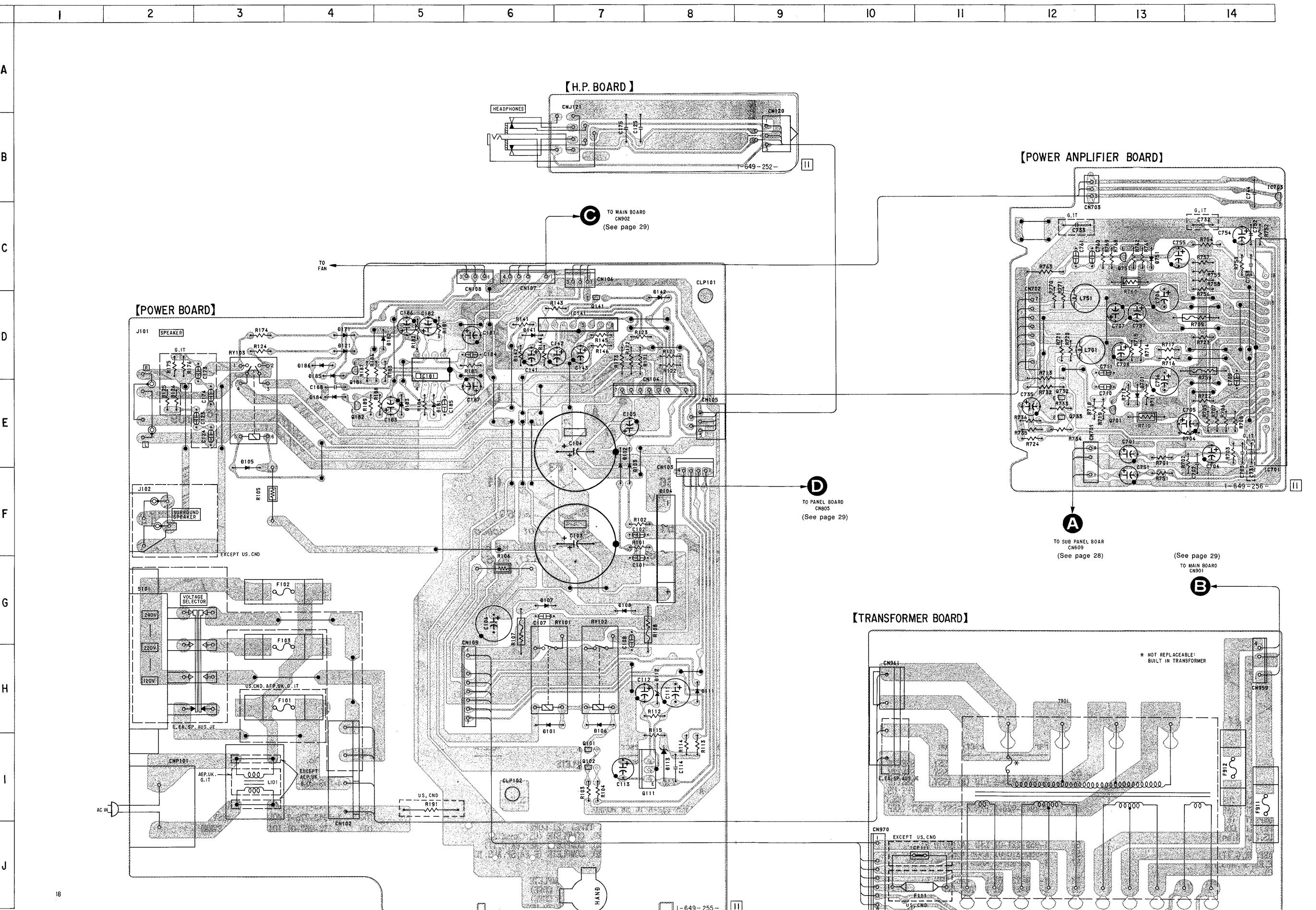
5-11. PRINTED WIRING BOARDS

—POWER Section—

- See page 15-17 for Circuit Boards Location and Semiconductor Lead Layouts.

• Semiconductor Location

Ref. No.	Location
D101	H-7
D102	F-7
D103	F-7
D104	F-8
D105	F-3
D106	H-7
D107	G-6
D108	G-7
D111	H-8
D112	H-8
D113	I-8
D121	D-4
D141	D-6
D142	D-8
D171	D-4
D181	E-5
D182	D-5
D183	E-5
D184	E-4
D185	D-4
D186	D-4
D701	E-13
D751	C-13
IC141	D-7
IC181	E-5
IC701	E-13
IC703	C-13
Q101	I-7
Q102	I-7
Q111	I-8
Q141	D-7
Q181	E-4
Q182	E-4
Q701	E-13
Q732	E-12
Q733	E-12
Q751	C-13



Note:

- : parts extracted from the component side.
- : Pattern on the side which is seen.

SECTION 6 EXPLODED VIEWS

NOTE:

● -xx,-x mean standardized parts, so they may have some differences from the original one.

● Color Indication of Appearance Parts

Example:

KNOB, BALANCE (WHITE)...(RED)

↑
Parts color

↑
Cabinet's color

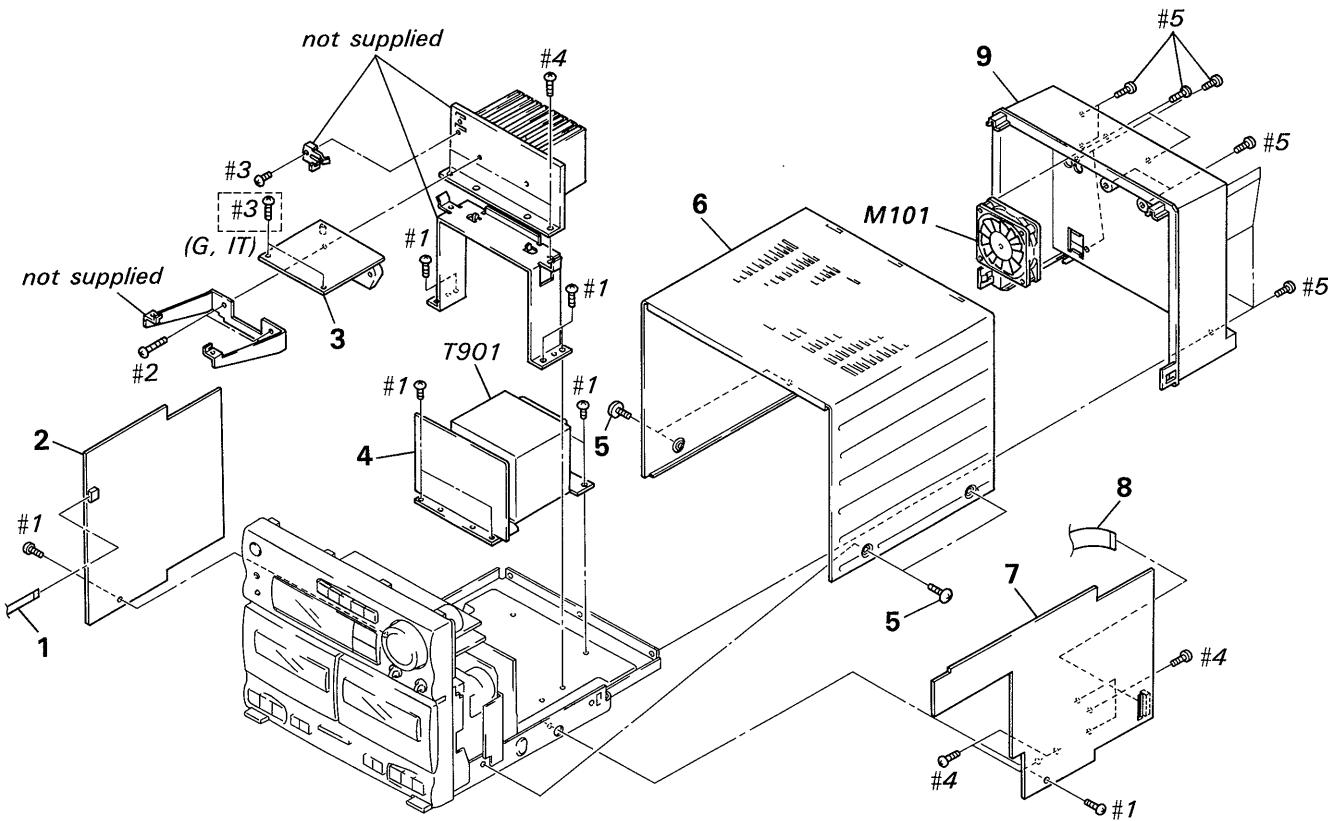
- Items marked “*” are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.
- The mechanical parts with no reference number in the exploded views are not supplied.
- Hardware (#mark) list is given in the last of this parts list.
- Abbreviations

JE: Tourist	AUS: Australian
EA: Saudi Arabia	G: German
SP: Singapore	IT: Italian

The components identified by mark \triangle or dotted line with mark. \triangle are critical for safety. Replace only with part number specified.

Les composants identifiés par une marque \triangle sont critiques pour la sécurité. Ne les remplacer que par une pièce portant le numéro spécifié.

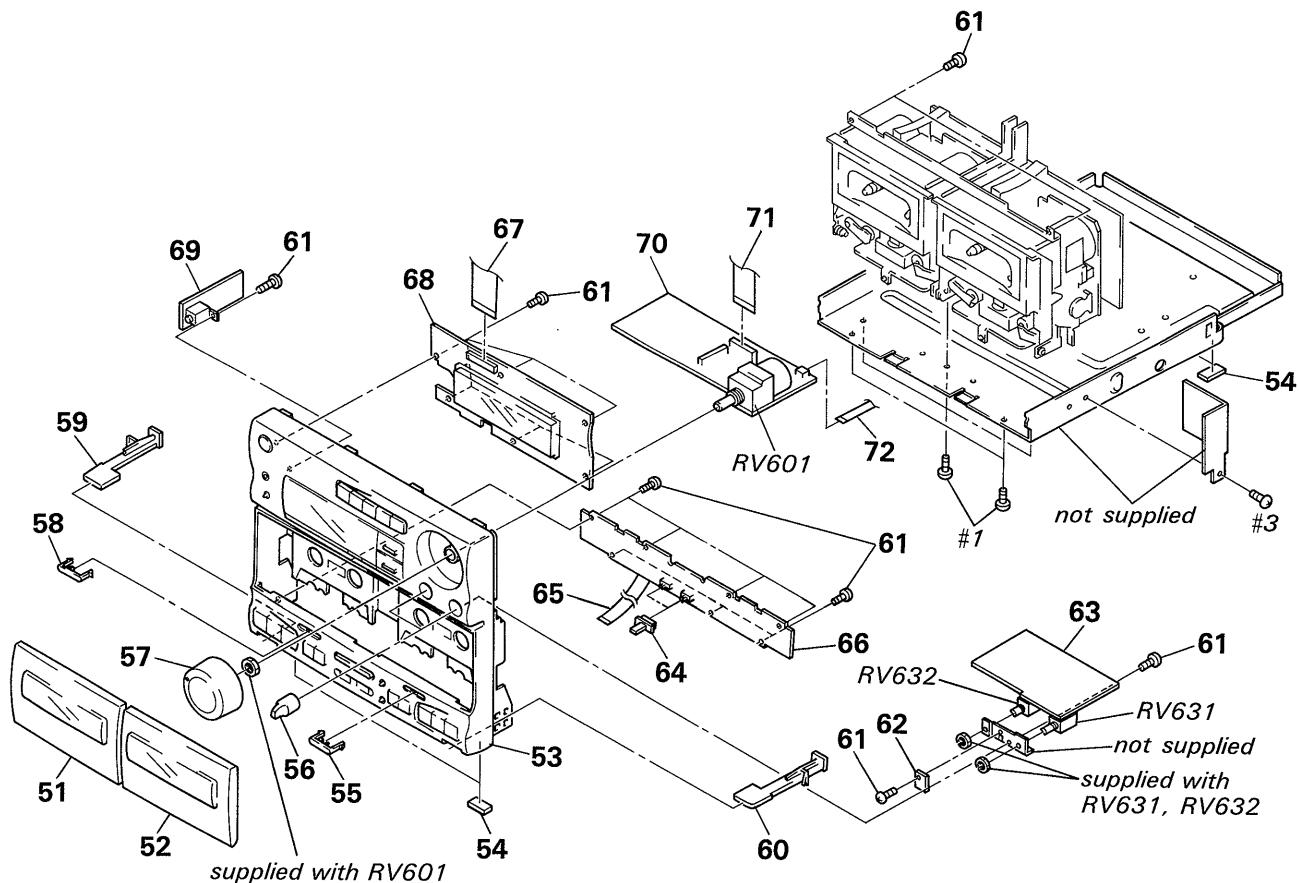
6-1. CASE, POWER SECTION



Ref. No.	Part No.	Description	Remark
1	1-751-686-11	WIRE (FLAT TYPE) (5 CORE)	
*2	A-4365-234-A	POWER BOARD, COMPLETE (US, Canadian)	
*2	A-4365-239-A	POWER BOARD, COMPLETE (AEP, UK)	
*2	A-4365-249-A	POWER BOARD, COMPLETE (E, JE)	
*2	A-4365-251-A	POWER BOARD, COMPLETE (EA, SP, AUS)	
*2	A-4365-252-A	POWER BOARD, COMPLETE (G, IT)	
*3	A-4365-235-A	POWER AMPLIFIER BOARD, COMPLETE (EXCEPT AEP, UK, G, IT)	
*3	A-4365-240-A	POWER AMPLIFIER BOARD, COMPLETE (AEP, UK)	
*3	A-4365-253-A	POWER AMPLIFIER BOARD, COMPLETE (G, IT)	
*4	1-649-257-11	TRANSFORMER BOARD	
5	3-363-099-01	SCREW (CASE 3 TP2)	
*6	4-960-313-41	CASE	

Ref. No.	Part No.	Description	Remark
*7	A-4365-224-A	MAIN BOARD, COMPLETE (US, Canadian)	
*7	A-4365-237-A	MAIN BOARD, COMPLETE (AEP, UK, G, IT)	
*7	A-4365-247-A	MAIN BOARD, COMPLETE (E, EA, SP, AUS, JE)	
8	1-751-689-11	WIRE (FLAT TYPE) (15 CORE)	
*9	4-960-312-01	PANEL, BACK (US, Canadian)	
*9	4-960-312-11	PANEL, BACK (AEP, UK, G, IT)	
*9	4-960-312-31	PANEL, BACK (E, EA, SP, AUS, JE)	
M101	1-698-173-11	MOTOR, FAN (DC)	
△T901	1-423-776-11	TRANSFORMER, POWER (E, EA, SP, AUS, JE)	
△T901	1-423-777-11	TRANSFORMER, POWER (UK)	
△T901	1-423-778-11	TRANSFORMER, POWER (AEP, G, IT)	
△T901	1-423-779-11	TRANSFORMER, POWER (US, Canadian)	

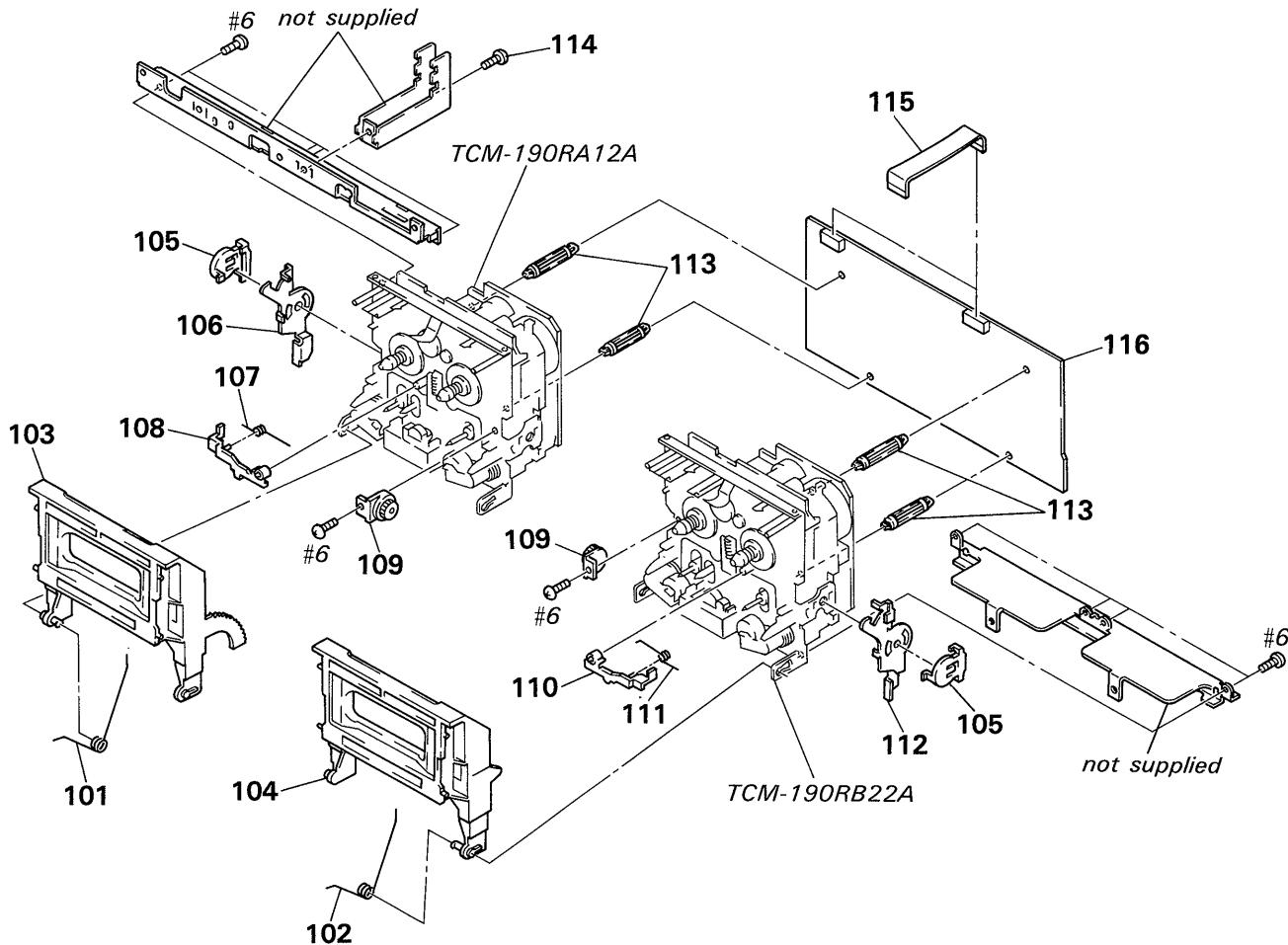
6-2. FRONT PANEL SECTION



Ref. No.	Part No.	Description	Remark
51	X-4943-803-1	LID (L) ASSY, CASSETTE	
52	X-4943-802-1	LID (R) ASSY, CASSETTE (US, Canadian)	
52	X-4943-958-1	LID (R) ASSY, CASSETTE (EXCEPT US, Canadian)	
53	X-4943-918-1	PANEL ASSY, FRONT (US, Canadian)	
53	X-4943-926-1	PANEL ASSY, FRONT (AEP, UK, G, IT)	
53	X-4943-966-1	PANEL ASSY, FRONT (E, EA, SP, AUS, JE)	
54	4-930-336-31	FOOT (FELT)	
55	4-959-221-01	LID (AZIMUTH R)	
56	4-960-310-01	KNOB (DBS)	
57	X-4942-957-1	KNOB (VOLUME) ASSY	
58	4-959-222-01	LID (AZIMUTH L)	
59	4-959-210-01	BUTTON (EJECT-L)	
60	4-959-288-01	BUTTON (EJECT-R)	
61	4-951-620-01	SCREW (2.6X8), +BVTP	
*62	1-649-254-11	LED BOARD	

Ref. No.	Part No.	Description	Remark
*63	A-4365-228-A	DBS BOARD, COMPLETE	
64	4-959-223-01	KNOB (TC)	
65	1-696-746-11	WIRE (FLAT TYPE) (15 CORE)	
*66	A-4365-220-A	TC SW BOARD, COMPLETE	
*66	A-4365-232-A	TC SW BOARD, COMPLETE (EXCEPT US, Canadian)	
*66	A-4365-232-A	TC SW BOARD, COMPLETE (US, Canadian)	
67	1-751-690-11	WIRE (FLAT TYPE) (21 CORE)	
*68	A-4365-225-A	PANEL BOARD, COMPLETE (US, Canadian)	
*68	A-4365-238-A	PANEL BOARD, COMPLETE (AEP, UK, G, IT)	
*68	A-4365-248-A	PANEL BOARD, COMPLETE (E, EA, SP, AUS, JE)	
*69	1-649-252-11	H. P BOARD	
*70	A-4365-226-A	SUB PANEL BOARD, COMPLETE	
71	1-590-577-11	WIRE, FLAT TYPE (17 CORE)	
72	1-751-686-11	WIRE (FLAT TYPE) (5 CORE)	
RV601	1-223-487-11	RES, VAR, CARBON (WITH MOTOR) (VOLUME)	

6-3. MECHANISM DECK CHASSIS SECTION

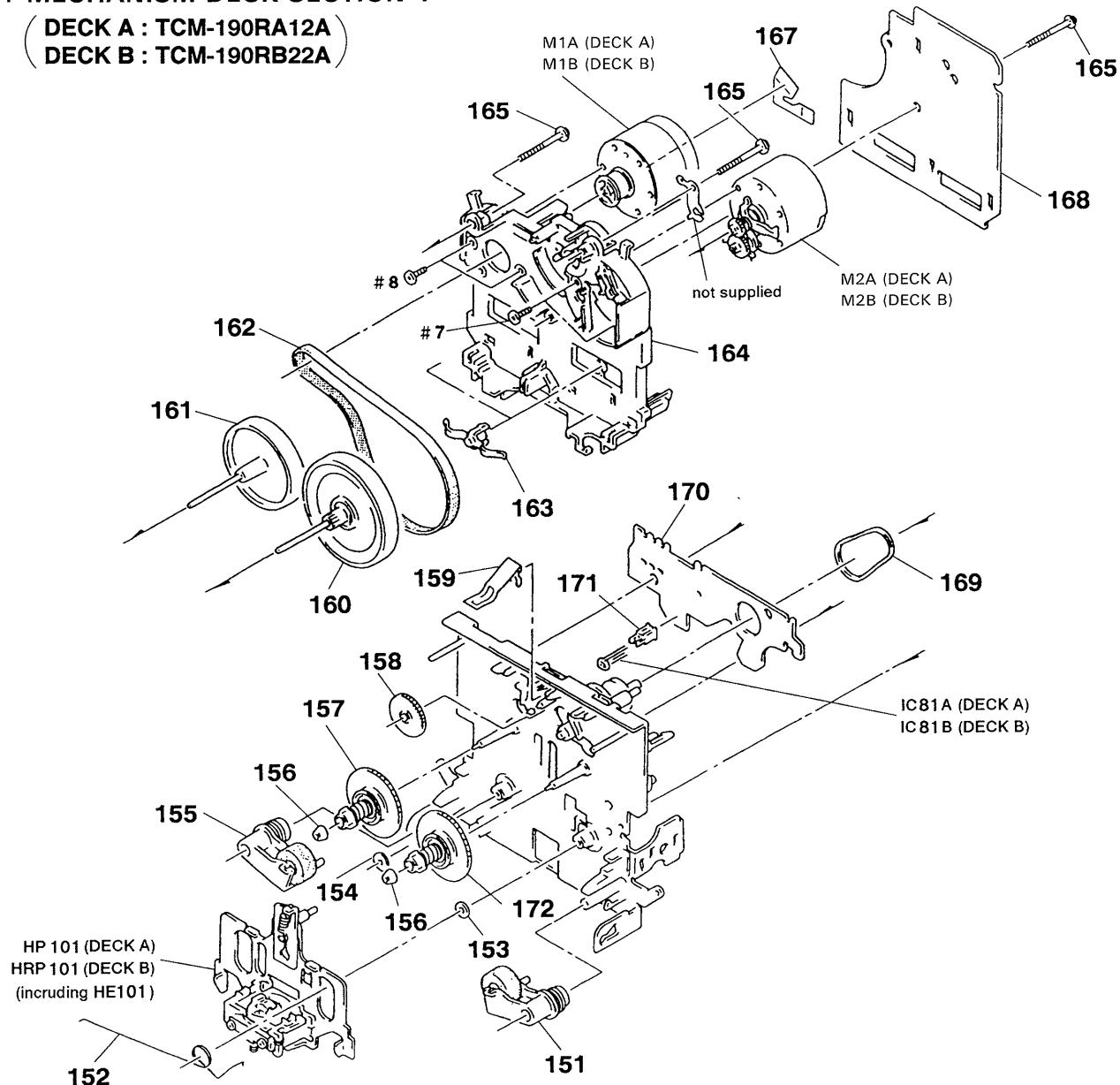


Ref. No.	Part No.	Description	Remark
101	4-959-231-01	SPRING (L), TORSION	
102	4-959-232-01	SPRING (R), TORSION	
103	X-4943-776-1	HOLDER (L) ASSY, CASSETTE	
104	X-4943-775-1	HOLDER (R) ASSY, CASSETTE	
105	3-354-957-01	JOINT (LOCK LEVER)	
*106	3-367-709-01	LEVER (LOCK LEVER L)	
107	3-354-961-01	SPRING (EJ SAFTY SPRING L)	
108	3-354-955-01	LEVER (EJ SAFTY LEVER L)	
109	3-354-963-01	DAMPER	

Ref. No.	Part No.	Description	Remark
110	3-354-956-01	LEVER (EJ SAFTY LEVER R)	
111	3-354-962-01	SPRING (EJ SAFTY SPRING R)	
*112	3-367-710-01	LEVER (LOCK LEVER R)	
*113	3-682-419-21	HOLDER, P.C.B	
114	4-951-620-01	SCREW (2.6X8), +BVTP	
115	1-590-902-11	WIRE, FLAT TYPE (9 CORE)	
*116	A-4365-221-A	TC MAIN BOARD, COMPLETE (EXCEPT US, Canadian)	
*116	A-4365-233-A	TC MAIN BOARD, COMPLETE (US, Canadian)	

6-4. MECHANISM DECK SECTION-1

(DECK A : TCM-190RA12A)
(DECK B : TCM-190RB22A)

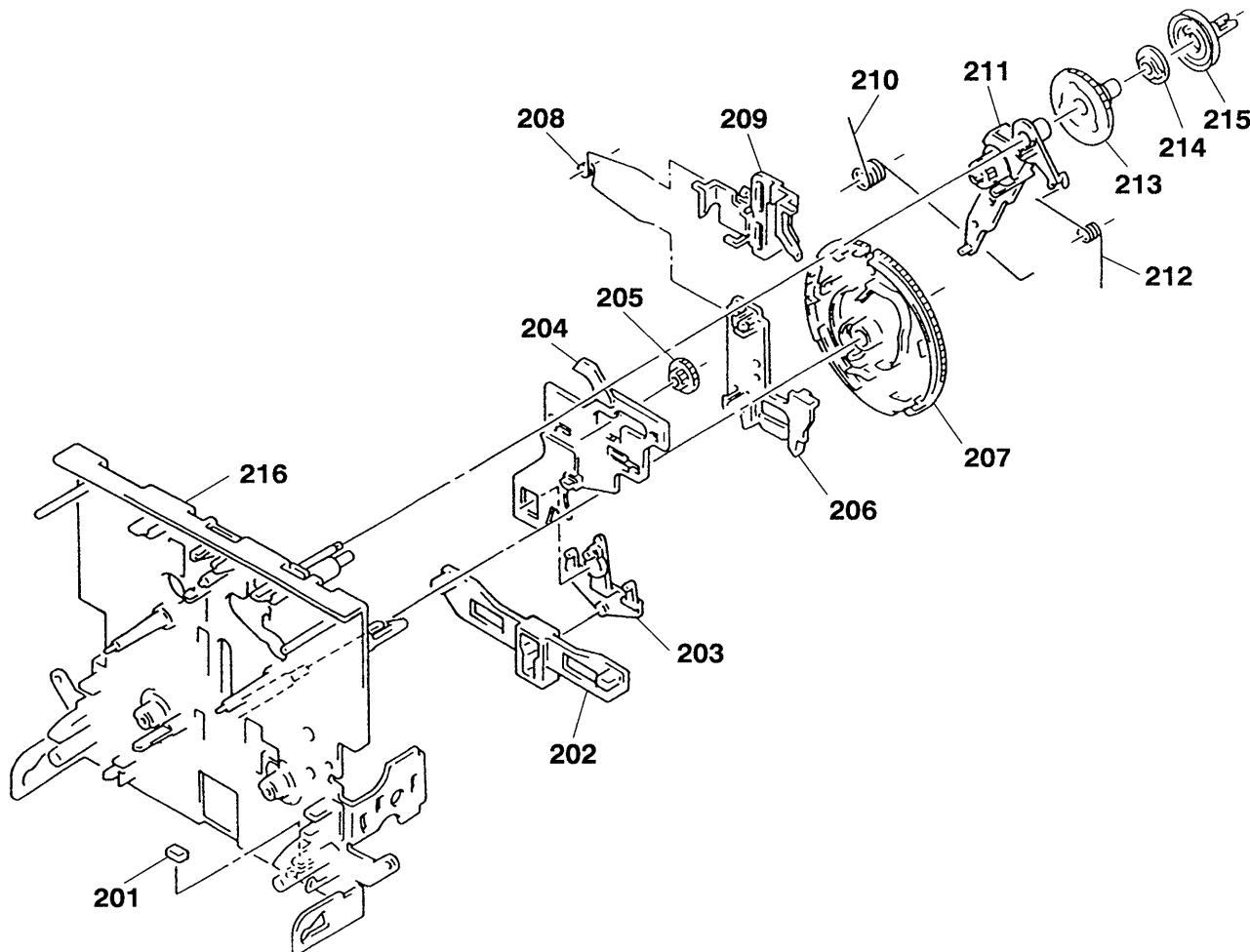


Ref. No.	Part No.	Description	Remark
151	X-3359-408-1	LEVER (PINCH LEVER FWD) ASSY	
152	3-359-455-01	SPRING, TORSION	
153	3-356-713-01	WASHER	
154	3-356-714-01	WASHER	
155	X-3359-409-1	LEVER (PINCH LEVER REV) ASSY	
156	3-362-308-01	CAP (REEL)	
157	X-3362-078-1	TABLE ASSY (B), REEL	
158	3-359-424-01	GEAR (REV GEAR)	
159	3-359-430-01	SPRING (CASSETTE RETAINER), LEAF	
160	X-3359-406-1	FLYWHEEL (FWD) ASSY	
161	X-3359-410-1	FLYWHEEL (REV) ASSY	
162	3-359-417-01	BELT (FLAT), CAPSTAN	
163	3-575-321-00	RETAINER, THRUST, CAPSTAN	
* 164	3-359-436-01	BASE (THRUST RETAINER), FITTING	
165	3-359-414-01	SCREW (+PTPW 2X23)	
167	1-638-983-11	PC BOARD, MOTOR FLEXIBLE	

Ref. No.	Part No.	Description	Remark
* 168	A-2006-399-A	MD (AX) BOARD, COMPLETE (DECK A)	
* 168	A-2006-400-A	MD (BX) BOARD, COMPLETE (DECK B)	
169	3-359-466-01	BELT (FR), SQUARE	
* 170	1-634-841-14	LEAF SW (A) BOARD (DECK A)	
* 170	1-634-841-14	LEAF SW (B) BOARD (DECK B)	
171	3-343-419-01	HOLDER (S SENSER A)	
172	X-3359-404-1	TABLE ASSY, REEL	
HP101	A-2003-837-F	BASE ASSY, HEAD (DECK A)	
HRP101	A-2003-838-F	DECK ASSY, HEAD (DECK B)	(including HE101)
IC81A	8-719-710-03	PHOTO REFLECTOR NJL5165K-B (DECK A)	
IC81B	8-719-710-03	PHOTO REFLECTOR NJL5165K-B (DECK B)	
M1A	X-3365-377-1	MOTOR ASSY (CAPSTAN) (DECK A)	
M1B	X-3365-377-1	MOTOR ASSY (CAPSTAN) (DECK B)	
M2A	X-3363-501-1	MOTOR ASSY (REEL) (DECK A)	
M2B	X-3363-501-1	MOTOR ASSY (REEL) (DECK B)	

6-5. MECHANISM DECK SECTION-2

(DECK A : TCM-190RA12A)
 (DECK B : TCM-190RB22A)



Ref. No.	Part No.	Description	Remark
201	3-359-469-01	SPACER	
*202	3-359-425-01	SLIDER (REVERSE SLIDER)	
203	3-359-426-01	LEVER (REVERSE LEVER)	
*204	3-359-415-01	SLIDER (TRIGGER SLIDER)	
205	3-359-448-01	GEAR (TRIGGER)	
*206	3-359-427-01	SLIDER (LEVERSE SLIDER)	
207	3-359-420-01	GEAR (CAM GEAR)	
208	3-359-454-01	SPRING, TORSION	

Ref. No.	Part No.	Description	Remark
209	3-359-429-01	SLIDER (BRAKE PLATE)	
210	3-359-456-01	SPRING (TRIGGER SPRING), TORSION	
211	X-3359-405-1	LEVER (FR ARM) ASSY	
212	3-359-453-01	SPRING (FR ARM), TORSION	
213	3-359-419-01	GEAR (FR GEAR)	
214	3-359-421-01	CLUTCH (REEL DISK)	
215	3-359-418-01	PULLEY (FR PULLEY)	
216	X-3363-790-1	CHASSIS ASSY, MECHANICAL	

SECTION 7

ELECTRICAL PARTS LIST

DBS

H.P.

NOTE:

- Due to standardization, replacements in the parts list may be different from the parts specified in the diagrams or the components used on the set.
- -XX and -X mean standardized parts, so they may have some difference from the original one.
- **RESISTORS**
All resistors are in ohms.
METAL: Metal-film resistor.
METAL OXIDE: Metal oxide-film resistor.
F: nonflammable

● Items marked “*” are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.

● **SEMICONDUCTORS**

In each case, u : μ , for example:

uA... : μ A..., uPA... : μ PA...,
uPB... : μ PB..., uPC... : μ PC..., uPD... : μ PD...

● **CAPACITORS**

uF : μ F

● **COILS**

uH : μ H

● **Abbreviations**

JE: Tourist

EA: Saudi Arabia

When indicating parts by reference number, please include the board.

SP: Singapore

AUS: Australian

G: German

IT: Italian

The components identified by mark Δ or dotted line with mark Δ are critical for safety. Replace only with part number specified.

Les composants identifiés par une marque Δ sont critiques pour la sécurité.

Ne les remplacer que par une pièce portant le numéro spécifié.

Ref. No.	Part No.	Description				Remark	Ref. No.	Part No.	Description				Remark	
*	A-4365-228-A	DBS BOARD, COMPLETE	*****				R632	1-249-441-11	CARBON	100K	5%	1/4W		
							R633	1-249-431-11	CARBON	15K	5%	1/4W		
							R634	1-249-421-11	CARBON	2.2K	5%	1/4W		
							R635	1-249-437-11	CARBON	47K	5%	1/4W		
			< CAPACITOR >				R636	1-247-895-00	CARBON	470K	5%	1/4W		
C631	1-124-257-00	ELECT	2.2uF	20%	50V		R637	1-249-429-11	CARBON	10K	5%	1/4W		
C632	1-162-282-31	CERAMIC	100PF	10%	50V		R638	1-249-417-11	CARBON	1K	5%	1/4W		
C633	1-162-282-31	CERAMIC	100PF	10%	50V		R639	1-249-421-11	CARBON	2.2K	5%	1/4W		
C634	1-124-252-00	ELECT	0.33uF	20%	50V		R641	1-249-413-11	CARBON	470	5%	1/4W		
C635	1-136-165-00	FILM	0.1uF	5%	50V		R642	1-249-433-11	CARBON	22K	5%	1/4W		
C636	1-126-160-11	ELECT	1uF	20%	50V		R643	1-249-433-11	CARBON	22K	5%	1/4W		
C637	1-124-257-00	ELECT	2.2uF	20%	50V		R644	1-249-441-11	CARBON	100K	5%	1/4W		
C647	1-124-257-00	ELECT	2.2uF	20%	50V		R647	1-249-417-11	CARBON	1K	5%	1/4W		
C638	1-124-229-00	ELECT	33uF	20%	10V		R681	1-249-417-11	CARBON	1K	5%	1/4W		
C681	1-124-257-00	ELECT	2.2uF	20%	50V		R682	1-249-441-11	CARBON	100K	5%	1/4W		
C682	1-162-282-31	CERAMIC	100PF	10%	50V		R683	1-249-431-11	CARBON	15K	5%	1/4W		
C683	1-162-282-31	CERAMIC	100PF	10%	50V		R684	1-249-421-11	CARBON	2.2K	5%	1/4W		
C684	1-124-252-00	ELECT	0.33uF	20%	50V		R685	1-249-437-11	CARBON	47K	5%	1/4W		
C685	1-136-165-00	FILM	0.1uF	5%	50V		R686	1-247-895-00	CARBON	470K	5%	1/4W		
C686	1-126-160-11	ELECT	1uF	20%	50V		R687	1-249-429-11	CARBON	10K	5%	1/4W		
C687	1-124-257-00	ELECT	2.2uF	20%	50V		R688	1-249-417-11	CARBON	1K	5%	1/4W		
C688	1-124-229-00	ELECT	33uF	20%	10V		R689	1-249-421-11	CARBON	2.2K	5%	1/4W		
	< CONNECTOR >				< VARIABLE RESISTOR >									
*CN605	1-564-336-00	PIN, CONNECTOR 2P					RV631	1-223-490-11	RES, VAR, CARBON	50K/50K	(DBS LEVEL)			
*CN606	1-568-848-11	SOCKET, CONNECTOR 5P					RV632	1-223-489-11	RES, VAR, CARBON	100K/100K	(DBS FREQ)			
	< IC >				*****				*****					
IC631	8-759-634-51	IC	M5218AP				*	1-649-252-11	H. P. BOARD					
	< TRANSISTOR >				< CAPACITOR >									
Q631	8-729-620-05	TRANSISTOR	2SC2603-EF				C125	1-162-286-31	CERAMIC	220PF	10%	50V		
Q641	8-729-141-30	TRANSISTOR	2SC3623A-LK				C175	1-162-286-31	CERAMIC	220PF	10%	50V		
Q681	8-729-620-05	TRANSISTOR	2SC2603-EF					< CONNECTOR >						
Q691	8-729-141-30	TRANSISTOR	2SC3623A-LK				*CN120	1-568-848-11	SOCKET, CONNECTOR 5P					
	< RESISTOR >													
R631	1-249-417-11	CARBON		1K	5%	1/4W								

H.P.**LEAF SW (A)****LEAF SW (B)****MAIN**

Ref. No.	Part No.	Description	Remark
< JACK >			

CNJ121 1-750-032-11 JACK (DIA. 3.5) (HEADPHONES)

* 1-634-841-14 LEAF SW (A) BOARD

< CONNECTOR >

* CNP81 1-568-852-11 SOCKET, CONNECTOR 9P

< IC >

IC81 8-749-924-10 IC PHONT REFLECTOR NJL5165K-B(H1)

< RESISTOR >

R84 1-249-417-11 CARBON 1K 5% 1/4W
R85 1-249-408-11 CARBON 180 5% 1/4W

< SWITCH >

S81 1-571-958-11 SWITCH, PUSH (1 KEY) (STOP DET)
S82 1-571-281-21 SWITCH, LEAF (CrO₂ DET)
S86 1-571-281-21 SWITCH, LEAF (HALF DET)

* 1-634-841-14 LEAF SW (B) BOARD

< CONNECTOR >

* CNP81 1-568-852-11 SOCKET, CONNECTOR 9P

< IC >

IC81 8-749-924-10 IC PHONT REFLECTOR NJL5165K-B(H1)

< RESISTOR >

R81 1-249-414-11 CARBON 560 5% 1/4W
R82 1-247-818-11 CARBON 300 5% 1/4W
R83 1-247-834-11 CARBON 1.3K 5% 1/4W
R84 1-249-417-11 CARBON 1K 5% 1/4W
R85 1-249-408-11 CARBON 180 5% 1/4W

< SWITCH >

S81 1-571-958-11 SWITCH, PUSH (1 KEY) (STOP DET)
S82 1-571-281-21 SWITCH, LEAF (CrO₂ DET)
S83 1-571-281-21 SWITCH, LEAF (METAL DET)
S84 1-571-281-21 SWITCH, LEAF (ERASE PROOF DECK A)
S85 1-571-281-21 SWITCH, LEAF (ERASE PROOF DECK B)

S86 1-571-281-21 SWITCH, LEAF (HALF DET)

Ref. No.	Part No.	Description	Remark
*	A-4365-224-A	MAIN BOARD, COMPLETE	(US, CND)
*	A-4365-237-A	MAIN BOARD, COMPLETE	(AEP, UK, G, IT)
*	A-4365-247-A	MAIN BOARD, COMPLETE	(E, EA, SP, AUS, JE)

* 1-533-293-11 FUSE HOLDER
* 3-309-144-21 HEAT SINK
* 4-880-403-11 HEAT SINK
7-682-548-04 SCREW +BVTT 3X8 (S)

< CAPACITOR >

C501	1-124-907-11	ELECT	10uF	20%	50V	
C502	1-162-282-31	CERAMIC	100PF	10%	50V	
C503	1-162-282-31	CERAMIC	100PF	10%	50V	(AEP, UK, G, IT)
C504	1-124-477-11	ELECT	47uF	20%	25V	(AEP, UK, G, IT)
C505	1-161-377-00	CERAMIC	0.0047uF	30%	16V	(AEP, UK, G, IT)
C506	1-161-374-11	CERAMIC	0.0015uF	20%	50V	(AEP, UK, G, IT)
C507	1-124-464-11	ELECT	0.22uF	20%	50V	(AEP, UK, G, IT)
C508	1-124-477-11	ELECT	47uF	20%	25V	(AEP, UK, G, IT)
C512	1-162-282-31	CERAMIC	100PF	10%	50V	
C514	1-162-282-31	CERAMIC	100PF	10%	50V	
C521	1-161-379-00	CERAMIC	0.01uF	20%	25V	
C522	1-161-379-00	CERAMIC	0.01uF	20%	25V	
C531	1-161-374-11	CERAMIC	0.0015uF	20%	50V	(E, EA, SP, AUS, JE)
C532	1-161-379-00	CERAMIC	0.01uF	20%	25V	(E, EA, SP, AUS, JE)
C533	1-162-282-31	CERAMIC	100PF	10%	50V	(E, EA, SP, AUS, JE)
C534	1-162-215-31	CERAMIC	47PF	5%	50V	
C536	1-124-477-11	ELECT	47uF	20%	25V	
C551	1-124-907-11	ELECT	10uF	20%	50V	
C552	1-162-282-31	CERAMIC	100PF	10%	50V	
C553	1-162-282-31	CERAMIC	100PF	10%	50V	(AEP, UK, G, IT)
C554	1-124-477-11	ELECT	47uF	20%	25V	(AEP, UK, G, IT)
C555	1-161-377-00	CERAMIC	0.0047uF	30%	16V	(AEP, UK, G, IT)
C556	1-161-374-11	CERAMIC	0.0015uF	20%	50V	(AEP, UK, G, IT)
C557	1-124-464-11	ELECT	0.22uF	20%	50V	(AEP, UK, G, IT)
C558	1-124-477-11	ELECT	47uF	20%	25V	(AEP, UK, G, IT)
C562	1-162-282-31	CERAMIC	100PF	10%	50V	
C564	1-162-282-31	CERAMIC	100PF	10%	50V	
C581	1-161-374-11	CERAMIC	0.0015uF	20%	50V	(E, EA, SP, AUS, JE)
C582	1-161-379-00	CERAMIC	0.01uF	20%	25V	(E, EA, SP, AUS, JE)
C583	1-162-282-31	CERAMIC	100PF	10%	50V	(E, EA, SP, AUS, JE)
C584	1-162-215-31	CERAMIC	47PF	5%	50V	
C586	1-124-477-11	ELECT	47uF	20%	25V	
C601	1-162-286-31	CERAMIC	220PF	10%	50V	
C602	1-161-379-00	CERAMIC	0.01uF	20%	25V	
C603	1-161-379-00	CERAMIC	0.01uF	20%	25V	
C604	1-110-340-11	MYLAR	270PF	5%	50V	
C605	1-130-479-00	MYLAR	0.0047uF	5%	50V	
C606	1-130-469-00	MYLAR	680PF	5%	50V	
C607	1-136-154-00	FILM	0.012uF	5%	50V	

Ref. No.	Part No.	Description	Remark		
C608	1-130-474-00	MYLAR	0.0018uF	5%	50V
C609	1-136-159-00	FILM	0.033uF	5%	50V
C610	1-130-478-00	MYLAR	0.0039uF	5%	50V
C611	1-136-163-00	FILM	0.068uF	5%	50V
C612	1-136-153-00	FILM	0.01uF	5%	50V
C613	1-136-168-00	FILM	0.18uF	5%	50V
C614	1-136-158-00	FILM	0.027uF	5%	50V
C615	1-124-465-00	ELECT	0.47uF	20%	50V
C616	1-136-163-00	FILM	0.068uF	5%	50V
C617	1-126-301-11	ELECT	1uF	20%	50V
C618	1-162-286-31	CERAMIC	220PF	10%	50V
C620	1-124-907-11	ELECT	10uF	20%	50V
C621	1-124-477-11	ELECT	47uF	20%	25V
C622	1-124-477-11	ELECT	47uF	20%	25V
C623	1-161-379-00	CERAMIC	0.01uF	20%	25V
C624	1-161-379-00	CERAMIC	0.01uF	20%	25V
C625	1-124-477-11	ELECT	47uF	20%	25V
C626	1-161-379-00	CERAMIC	0.01uF	20%	25V
C627	1-161-379-00	CERAMIC	0.01uF	20%	25V
C628	1-161-379-00	CERAMIC	0.01uF	20%	25V
C651	1-162-286-31	CERAMIC	220PF	10%	50V
C652	1-161-379-00	CERAMIC	0.01uF	20%	25V
C653	1-161-379-00	CERAMIC	0.01uF	20%	25V
C654	1-110-340-11	MYLAR	270PF	5%	50V
C655	1-130-479-00	MYLAR	0.0047uF	5%	50V
C656	1-130-469-00	MYLAR	680PF	5%	50V
C657	1-136-154-00	FILM	0.012uF	5%	50V
C658	1-130-474-00	MYLAR	0.0018uF	5%	50V
C659	1-136-159-00	FILM	0.033uF	5%	50V
C660	1-130-478-00	MYLAR	0.0039uF	5%	50V
C661	1-136-163-00	FILM	0.068uF	5%	50V
C662	1-136-153-00	FILM	0.01uF	5%	50V
C663	1-136-168-00	FILM	0.18uF	5%	50V
C664	1-136-158-00	FILM	0.027uF	5%	50V
C665	1-124-465-00	ELECT	0.47uF	20%	50V
C666	1-136-163-00	FILM	0.068uF	5%	50V
C667	1-126-301-11	ELECT	1uF	20%	50V
C668	1-162-286-31	CERAMIC	220PF	10%	50V
C670	1-124-907-11	ELECT	10uF	20%	50V
C901	1-136-153-00	FILM	0.01uF	5%	50V
C902	1-136-153-00	FILM	0.01uF	5%	50V
C903	1-126-936-11	ELECT	3300uF	20%	16V
C904	1-126-936-11	ELECT	3300uF	20%	16V
C905	1-124-907-11	ELECT	10uF	20%	50V
C906	1-124-907-11	ELECT	10uF	20%	50V
C907	1-124-907-11	ELECT	10uF	20%	50V
C908	1-126-925-11	ELECT	470uF	20%	10V
C909	1-126-925-11	ELECT	470uF	20%	10V

Ref. No.	Part No.	Description	Remark		
C910	1-124-477-11	ELECT	47uF	20%	25V
C911	1-124-907-11	ELECT	10uF	20%	50V
C913	1-124-907-11	ELECT	10uF	20%	50V
C914	1-124-907-11	ELECT	10uF	20%	50V
C915	1-124-907-11	ELECT	10uF	20%	50V
C916	1-126-927-11	ELECT	2200uF	20%	10V
C917	1-126-927-11	ELECT	2200uF	20%	10V
< CONNECTOR >					
*CN501	1-750-923-11	HOUSING, CONNECTOR (PC BOARD)	15P		
CN601	1-691-767-11	PLUG (MICRO CONNECTOR)	5P		
*CN603	1-568-836-11	SOCKET, CONNECTOR	17P		
CN901	1-691-765-11	PLUG (MICRO CONNECTOR)	3P		
CN902	1-691-766-11	PLUG (MICRO CONNECTOR)	4P		
*CN903	1-568-834-11	SOCKET, CONNECTOR	15P		
< DIODE >					
D521	8-719-987-63	DIODE	1N4148M		
D522	8-719-987-63	DIODE	1N4148M		
D541	8-719-987-63	DIODE	1N4148M	(E, EA, SP, AUS, JE)	
D542	8-719-987-63	DIODE	1N4148M	(E, EA, SP, AUS, JE)	
D621	8-719-010-39	DIODE	UZ-5.1BSC		
D903	8-719-200-82	DIODE	11ES2		
D904	8-719-200-82	DIODE	11ES2		
D905	8-719-200-82	DIODE	11ES2		
D906	8-719-200-82	DIODE	11ES2		
< PLATE, GROUND >					
*E901	4-942-204-01	PLATE, GROUND			
< FUSE >					
▲ F901	1-532-776-21	FUSE, MICRO (SECONDARY)	(1A/125V) (US, CND)		
▲ F902	1-532-776-21	FUSE, MICRO (SECONDARY)	(1A/125V) (US, CND)		
▲ F951	1-532-741-11	FUSE, GLASSTUBE	(1.25A/125V) (US, CND)		
▲ F951	1-532-285-00	FUSE	(1.25A/250V) (EXCEPT US, CND)		
▲ F952	1-532-741-11	FUSE, GLASSTUBE	(1.25A/125V) (US, CND)		
▲ F952	1-532-285-00	FUSE	(1.25A/250V) (EXCEPT US, CND)		
< IC >					
IC501	8-759-634-51	IC	M5218AP	(AEP, UK, G, IT)	
IC521	8-759-000-48	IC	MC14052BCP		
IC531	8-759-634-51	IC	M5218AP		
IC601	8-759-633-78	IC	M5289P		
IC621	8-759-081-01	IC	NJU7305L		
The components identified by mark ▲ or dotted line with mark ▲ are critical for safety. Replace only with part number specified.					
Les composants identifiés par une marque ▲ sont critiques pour la sécurité. Ne les remplacer que par une pièce portant le numéro spécifié.					

The components identified by mark ▲ or dotted line with mark ▲ are critical for safety. Replace only with part number specified.	Les composants identifiés par une marque ▲ sont critiques pour la sécurité. Ne les remplacer que par une pièce portant le numéro spécifié.
--	--

Ref. No.	Part No.	Description		Remark
IC622	8-759-000-48	IC	MC14052BCP	
IC651	8-759-633-78	IC	M5289P	
IC901	8-759-602-66	IC	M5230L-A	
IC902	8-759-231-53	IC	TA7805S	
IC903	8-759-605-00	IC	M5F78M07L	
IC904	8-759-604-95	IC	M5F79M07L	

< IC LINK >

△ ICP901 1-532-839-11 LINK, IC PRF1000/1A (EXCEPT US, CND)
 △ ICP902 1-532-839-11 LINK, IC PRF1000/1A (EXCEPT US, CND)

< JACK >

J501 1-565-320-61 JACK, PIN 6P (VIDEO/PHONO, MD/DAT)

< TRANSISTOR >

Q511	8-729-141-30	TRANSISTOR	2SC3623A-LK	
Q521	8-729-900-61	TRANSISTOR	DTA114ES	
Q522	8-729-900-80	TRANSISTOR	DTC114ES	
Q541	8-729-202-67	TRANSISTOR	2SK246-GR3 (E, EA, SP, AUS, JE)	
Q542	8-729-202-67	TRANSISTOR	2SK246-GR3 (E, EA, SP, AUS, JE)	
Q543	8-729-119-76	TRANSISTOR	2SA1175-HFE (E, EA, SP, AUS, JE)	
Q544	8-729-141-30	TRANSISTOR	2SC3623A-LK (E, EA, SP, AUS, JE)	
Q545	8-729-141-30	TRANSISTOR	2SC3623A-LK (E, EA, SP, AUS, JE)	
Q561	8-729-141-30	TRANSISTOR	2SC3623A-LK	
Q903	8-729-620-05	TRANSISTOR	2SC2603-EF	
Q904	8-729-209-15	TRANSISTOR	2SD2012	
Q907	8-729-141-83	TRANSISTOR	2SB1094-LK	
Q929	8-729-620-05	TRANSISTOR	2SC2603-EF	

< RESISTOR >

R501	1-249-417-11	CARBON	1K	5%	1/4W	
R502	1-249-437-11	CARBON	47K	5%	1/4W	
R503	1-249-416-11	CARBON	820	5%	1/4W (AEP, UK, G, IT)	
R504	1-247-897-11	CARBON	560K	5%	1/4W (AEP, UK, G, IT)	
R505	1-249-437-11	CARBON	47K	5%	1/4W (AEP, UK, G, IT)	
R506	1-249-409-11	CARBON	220	5%	1/4W (AEP, UK, G, IT)	
R507	1-249-441-11	CARBON	100K	5%	1/4W (AEP, UK, G, IT)	
R508	1-249-409-11	CARBON	220	5%	1/4W (AEP, UK, G, IT)	
R511	1-249-417-11	CARBON	1K	5%	1/4W	
R512	1-249-441-11	CARBON	100K	5%	1/4W	
R513	1-249-421-11	CARBON	2.2K	5%	1/4W	
R514	1-249-421-11	CARBON	2.2K	5%	1/4W	
R515	1-249-425-11	CARBON	4.7K	5%	1/4W	
R516	1-249-427-11	CARBON	6.8K	5%	1/4W	
R517	1-249-417-11	CARBON	1K	5%	1/4W	
R521	1-249-429-11	CARBON	10K	5%	1/4W	
R522	1-249-429-11	CARBON	10K	5%	1/4W	
R523	1-249-433-11	CARBON	22K	5%	1/4W	

Ref. No.	Part No.	Description		Remark
R524	1-249-433-11	CARBON	22K	5% 1/4W
R532	1-249-437-11	CARBON	47K	5% 1/4W (E, EA, SP, AUS, JE)
R533	1-249-434-11	CARBON	27K	5% 1/4W (E, EA, SP, AUS, JE)
R534	1-249-437-11	CARBON	47K	5% 1/4W
R535	1-249-437-11	CARBON	47K	5% 1/4W
R537	1-249-437-11	CARBON	47K	5% 1/4W (EXCEPT US, CND)
R541	1-249-438-11	CARBON	56K	5% 1/4W (E, EA, SP, AUS, JE)
R542	1-249-441-11	CARBON	100K	5% 1/4W (E, EA, SP, AUS, JE)
R543	1-249-429-11	CARBON	10K	5% 1/4W (E, EA, SP, AUS, JE)
R544	1-249-433-11	CARBON	22K	5% 1/4W (E, EA, SP, AUS, JE)
R545	1-249-433-11	CARBON	22K	5% 1/4W (E, EA, SP, AUS, JE)
R546	1-249-429-11	CARBON	10K	5% 1/4W (E, EA, SP, AUS, JE)
R551	1-249-417-11	CARBON	1K	5% 1/4W
R552	1-249-437-11	CARBON	47K	5% 1/4W
R553	1-249-416-11	CARBON	820	5% 1/4W (AEP, UK, G, IT)
R554	1-247-897-11	CARBON	560K	5% 1/4W (AEP, UK, G, IT)
R555	1-249-437-11	CARBON	47K	5% 1/4W (AEP, UK, G, IT)
R556	1-249-409-11	CARBON	220	5% 1/4W (AEP, UK, G, IT)
R557	1-249-441-11	CARBON	100K	5% 1/4W (AEP, UK, G, IT)
R558	1-249-409-11	CARBON	220	5% 1/4W (AEP, UK, G, IT)
R561	1-249-417-11	CARBON	1K	5% 1/4W
R562	1-249-441-11	CARBON	100K	5% 1/4W
R563	1-249-421-11	CARBON	2.2K	5% 1/4W
R564	1-249-421-11	CARBON	2.2K	5% 1/4W
R565	1-249-425-11	CARBON	4.7K	5% 1/4W
R566	1-249-427-11	CARBON	6.8K	5% 1/4W
R567	1-249-417-11	CARBON	1K	5% 1/4W
R582	1-249-437-11	CARBON	47K	5% 1/4W (E, EA, SP, AUS, JE)
R583	1-249-434-11	CARBON	27K	5% 1/4W (E, EA, SP, AUS, JE)
R584	1-249-437-11	CARBON	47K	5% 1/4W
R585	1-249-437-11	CARBON	47K	5% 1/4W
R587	1-249-437-11	CARBON	47K	5% 1/4W (EXCEPT US, CND)
R601	1-249-425-11	CARBON	4.7K	5% 1/4W
R603	1-249-425-11	CARBON	4.7K	5% 1/4W
R604	1-247-903-00	CARBON	1M	5% 1/4W
R605	1-247-903-00	CARBON	1M	5% 1/4W
R606	1-247-903-00	CARBON	1M	5% 1/4W
R607	1-247-903-00	CARBON	1M	5% 1/4W
R608	1-247-903-00	CARBON	1M	5% 1/4W
R609	1-247-903-00	CARBON	1M	5% 1/4W
R610	1-247-903-00	CARBON	1M	5% 1/4W
R612	1-249-441-11	CARBON	100K	5% 1/4W
R620	1-247-807-31	CARBON	100	5% 1/4W
R621	1-249-417-11	CARBON	1K	5% 1/4W
R622	1-249-417-11	CARBON	1K	5% 1/4W
R623	1-249-425-11	CARBON	4.7K	5% 1/4W
R625	1-249-432-11	CARBON	18K	5% 1/4W
R626	1-249-428-11	CARBON	8.2K	5% 1/4W

The components identified by mark Δ or dotted line with mark Δ are critical for safety. Replace only with part number specified.

Les composants identifiés par la marque Δ sont critiques pour la sécurité. Ne les remplacer que par une pièce portant le numéro spécifié.

MAIN**MD (AX)****MD (BX)**

Ref.No.	Part No.	Description	Remark		
R627	1-249-433-11	CARBON	22K	5%	1/4W
R628	1-249-433-11	CARBON	22K	5%	1/4W
R651	1-249-425-11	CARBON	4.7K	5%	1/4W
R653	1-249-425-11	CARBON	4.7K	5%	1/4W
R654	1-247-903-00	CARBON	1M	5%	1/4W
R655	1-247-903-00	CARBON	1M	5%	1/4W
R656	1-247-903-00	CARBON	1M	5%	1/4W
R657	1-247-903-00	CARBON	1M	5%	1/4W
R658	1-247-903-00	CARBON	1M	5%	1/4W
R659	1-247-903-00	CARBON	1M	5%	1/4W
R660	1-247-903-00	CARBON	1M	5%	1/4W
R662	1-249-441-11	CARBON	100K	5%	1/4W
R901	1-249-409-11	CARBON	220	5%	1/4W
R903	1-247-903-00	CARBON	1M	5%	1/4W
R904	1-249-414-11	CARBON	560	5%	1/4W
R905	1-249-431-11	CARBON	15K	5%	1/4W
R906	1-249-425-11	CARBON	4.7K	5%	1/4W
R907	1-249-431-11	CARBON	15K	5%	1/4W
R908	1-249-431-11	CARBON	15K	5%	1/4W
R925	1-249-433-11	CARBON	22K	5%	1/4W
R928	1-249-433-11	CARBON	22K	5%	1/4W
R948	1-249-414-11	CARBON	560	5%	1/4W

* A-2006-399-A MD (AX) BOARD, COMPLETE

< CAPACITOR >

C11	1-163-131-00	CERAMIC CHIP	390PF	5%	50V
C12	1-136-157-00	FILM	0.022uF	5%	50V
C13	1-124-234-00	ELECT	22uF	20%	16V
C18	1-163-117-00	CERAMIC CHIP	100PF	5%	50V
C21	1-163-131-00	CERAMIC CHIP	390PF	5%	50V
C22	1-136-157-00	FILM	0.022uF	5%	50V
C23	1-124-234-00	ELECT	22uF	20%	16V
C28	1-163-117-00	CERAMIC CHIP	100PF	5%	50V
C31	1-124-234-00	ELECT	22uF	20%	16V
C32	1-124-234-00	ELECT	22uF	20%	16V
C72	1-124-499-11	ELECT, NONPOLAR	1uF	20%	50V

< CONNECTOR >

*CNJ31 1-580-782-11 CONNECTOR, BOARD TO BOARD
*CNP32 1-580-772-11 PIN, CONNECTOR (PC BOARD) 4P
*CNP71 1-564-719-11 PIN, CONNECTOR (SMALL TYPE) 3P
*CNJ72 1-580-411-11 SOCKET, CONNECTOR 4P

Ref.No.	Part No.	Description	Remark		
			< IC >		

IC31 8-759-106-02 IC uPC4570G2

< JUMPER RESISTOR >

JW1	1-216-295-00	METAL CHIP	0	5%	1/10W
JW51	1-216-296-00	METAL CHIP	0	5%	1/8W
JW52	1-216-296-00	METAL CHIP	0	5%	1/8W
JW53	1-216-296-00	METAL CHIP	0	5%	1/8W
JW54	1-216-296-00	METAL CHIP	0	5%	1/8W

< TRANSISTOR >

Q71 8-729-602-36 TRANSISTOR 2SA1602

< RESISTOR >

R11	1-216-099-00	METAL CHIP	120K	5%	1/10W
R12	1-216-025-00	METAL CHIP	100	5%	1/10W
R13	1-216-100-00	METAL GLAZE	130K	5%	1/10W
R14	1-216-067-00	METAL CHIP	5.6K	5%	1/10W
R21	1-216-099-00	METAL CHIP	120K	5%	1/10W

R22	1-216-025-00	METAL CHIP	100	5%	1/10W
R23	1-216-100-00	METAL GLAZE	130K	5%	1/10W
R24	1-216-067-00	METAL CHIP	5.6K	5%	1/10W
R31	1-216-033-00	METAL CHIP	220	5%	1/10W
R32	1-216-033-00	METAL CHIP	220	5%	1/10W

R71	1-216-082-00	METAL GLAZE	24K	5%	1/10W
R72	1-216-081-00	METAL CHIP	22K	5%	1/10W
R73	1-216-089-91	METAL GLAZE	47K	5%	1/10W
R74	1-216-089-91	METAL GLAZE	47K	5%	1/10W

< VARIABLE RESISTOR >

RV11	1-238-012-11	RES, ADJ, CARBON	1K		
RV21	1-238-012-11	RES, ADJ, CARBON	1K		
RV71	1-241-630-11	RES, ADJ, CARBON	10K		
RV72	1-241-630-11	RES, ADJ, CARBON	10K		

* A-2006-400-A MD (BX) BOARD, COMPLETE

< CAPACITOR >

C11	1-163-131-00	CERAMIC CHIP	390PF	5%	50V
C12	1-136-157-00	FILM	0.022uF	5%	50V
C13	1-124-234-00	ELECT	22uF	20%	16V
C14	1-136-273-91	FILM	75PF	5%	630V
C15	1-164-080-11	CERAMIC	390PF	10%	50V
C17	1-163-103-00	CERAMIC CHIP	27PF	5%	50V
C18	1-163-117-00	CERAMIC CHIP	100PF	5%	50V
C21	1-163-131-00	CERAMIC CHIP	390PF	5%	50V
C22	1-136-157-00	FILM	0.022uF	5%	50V

MD (BX)

Ref. No.	Part No.	Description	Remark			Ref. No.	Part No.	Description	Remark		
C23	1-124-234-00	ELECT	22uF	20%	16V	JW61	1-216-296-00	METAL CHIP	0	5%	1/8W
C24	1-136-273-91	FILM	75PF	5%	630V			< COIL >			
C25	1-164-080-11	CERAMIC	390PF	10%	50V	L11	1-410-780-11	INDUCTOR	27mH		
C27	1-163-103-00	CERAMIC CHIP	27PF	5%	50V	L21	1-410-780-11	INDUCTOR	27mH		
C28	1-163-117-00	CERAMIC CHIP	100PF	5%	50V			< TRANSISTOR >			
C31	1-124-234-00	ELECT	22uF	20%	16V	Q51	8-729-808-01	TRANSISTOR	2SD1622-S		
C32	1-124-234-00	ELECT	22uF	20%	16V	Q52	8-729-808-01	TRANSISTOR	2SD1622-S		
C33	1-124-234-00	ELECT	22uF	20%	16V	Q53	8-729-808-01	TRANSISTOR	2SD1622-S		
C51	1-163-019-00	CERAMIC CHIP	0.0068uF	10%	50V	Q71	8-729-602-36	TRANSISTOR	2SA1602		
C52	1-163-019-00	CERAMIC CHIP	0.0068uF	10%	50V			< RESISTOR >			
C53	1-163-022-00	CERAMIC CHIP	0.012uF	10%	50V	R11	1-216-099-00	METAL CHIP	120K	5%	1/10W
C54	1-136-559-11	FILM	0.0047uF	5%	630V	R12	1-216-025-00	METAL CHIP	100	5%	1/10W
C56	1-164-505-11	CERAMIC CHIP	2.2uF		16V	R13	1-216-100-00	METAL GLAZE	130K	5%	1/10W
C57	1-164-346-11	CERAMIC CHIP	1uF		16V	R14	1-216-067-00	METAL CHIP	5.6K	5%	1/10W
C58	1-163-024-00	CERAMIC CHIP	0.018uF	10%	50V	R15	1-249-430-11	CARBON	12K	5%	1/4W
C72	1-124-499-11	ELECT, NONPOLAR	1uF	20%	50V	R21	1-216-099-00	METAL CHIP	120K	5%	1/10W
						R22	1-216-025-00	METAL CHIP	100	5%	1/10W
						R23	1-216-100-00	METAL GLAZE	130K	5%	1/10W
						R24	1-216-067-00	METAL CHIP	5.6K	5%	1/10W
						R25	1-249-430-11	CARBON	12K	5%	1/4W
						R31	1-216-033-00	METAL CHIP	220	5%	1/10W
						R32	1-216-033-00	METAL CHIP	220	5%	1/10W
						R41	1-249-393-11	CARBON	10	5%	1/4W
						R42	1-249-393-11	CARBON	10	5%	1/4W
						R51	1-216-075-00	METAL CHIP	12K	5%	1/10W
						R52	1-216-075-00	METAL CHIP	12K	5%	1/10W
						R53	1-216-073-00	METAL CHIP	10K	5%	1/10W
						R54	1-216-309-00	METAL CHIP	5.6	5%	1/10W
						R55	1-216-309-00	METAL CHIP	5.6	5%	1/10W
						R56	1-216-298-00	METAL CHIP	2.2	5%	1/10W
						R71	1-216-082-00	METAL GLAZE	24K	5%	1/10W
						R72	1-216-081-00	METAL CHIP	22K	5%	1/10W
						R73	1-216-089-91	METAL GLAZE	47K	5%	1/10W
						R74	1-216-089-91	METAL GLAZE	47K	5%	1/10W
								< VARIABLE RESISTOR >			
						RV11	1-238-012-11	RES, ADJ, CARBON	1K		
						RV12	1-238-551-11	RES, ADJ, CARBON	220K		
						RV21	1-238-012-11	RES, ADJ, CARBON	1K		
						RV22	1-238-551-11	RES, ADJ, CARBON	220K		
						RV71	1-241-630-11	RES, ADJ, CARBON	10K		
						RV72	1-241-630-11	RES, ADJ, CARBON	10K		
								< RELAY >			
						RY31	1-515-913-11	RELAY			

MD (BX)**LED****PANEL**

Ref. No.	Part No.	Description	Remark				
< TRANSFORMER >							
T51	1-406-419-11	COIL, BIAS OSCILLATION					

*	1-649-254-11	LED BOARD					

< DIODE >							
D601	8-719-301-49	LED SEL2810A (DBS)					

*	A-4365-225-A	PANEL BOARD, COMPLETE	(US, CND)				
*	A-4365-238-A	PANEL BOARD, COMPLETE	(AEP, UK, G, IT)				
*	A-4365-248-A	PANEL BOARD, COMPLETE	(E, EA, SP, AUS, JE)				

*	4-496-311-01	HOLDER, FL TUBE					
< CAPACITOR >							
C811	1-136-165-00	FILM 0.1uF	5%	50V			
C813	1-126-157-11	ELECT 10uF	20%	16V			
C814	1-136-173-00	FILM 0.47uF	5%	50V			
C815	1-164-159-11	CERAMIC 0.1uF		50V			
C816	1-161-379-00	CERAMIC 0.01uF	20%	25V			
C817	1-124-907-11	ELECT 10uF	20%	50V			
C818	1-164-159-11	CERAMIC 0.1uF		50V			
C819	1-164-159-11	CERAMIC 0.1uF		50V			
< CONNECTOR >							
*CN804	1-568-864-11	SOCKET, CONNECTOR 21P					
< DIODE >							
D813	8-719-987-63	DIODE 1N4148M					
D851	8-719-987-63	DIODE 1N4148M					
D891	8-719-301-37	LED SEL2210S-CD (ON/STANDBY)					
D892	8-719-301-37	LED SEL2210S-CD (TAPE)					
D893	8-719-301-37	LED SEL2210S-CD (MD/DAT)					
D894	8-719-301-37	LED SEL2210S-CD (CD)					
D895	8-719-301-37	LED SEL2210S-CD (TUNER)					
D896	8-719-301-37	LED SEL2210S-CD (PHONO)					
< FLUORESCENT INDICATOR TUBE >							
FL801	1-517-216-11	INDICATOR TUBE, FLUORESCENT					
< IC >							
IC811	8-759-605-16	IC M51953BL					
IC821	8-759-184-20	IC TMP87CC78F-6104					
< TRANSISTOR >							
Q811	8-729-620-05	TRANSISTOR 2SC2603-EF					
Q851	8-729-620-05	TRANSISTOR 2SC2603-EF					

Ref. No.	Part No.	Description	Remark				
Q891	8-729-900-80	TRANSISTOR DTC114ES					
Q892	8-729-900-80	TRANSISTOR DTC114ES					
Q893	8-729-900-80	TRANSISTOR DTC114ES					
Q894	8-729-900-80	TRANSISTOR DTC114ES					
Q895	8-729-900-80	TRANSISTOR DTC114ES					
Q896	8-729-900-80	TRANSISTOR DTC114ES					
< RESISTOR >							
R811	1-249-429-11	CARBON 10K	5%	1/4W			
R812	1-249-433-11	CARBON 22K	5%	1/4W			
R813	1-249-433-11	CARBON 22K	5%	1/4W			
R832	1-249-429-11	CARBON 10K	5%	1/4W (AEP, UK, G, IT)			
R833	1-249-429-11	CARBON 10K	5%	1/4W (E, EA, SP, AUS, JE)			
R834	1-249-429-11	CARBON 10K	5%	1/4W			
R835	1-249-429-11	CARBON 10K	5%	1/4W			
R837	1-249-429-11	CARBON 10K	5%	1/4W			
R838	1-249-429-11	CARBON 10K	5%	1/4W			
R841	1-247-903-00	CARBON 1M	5%	1/4W			
R847	1-249-429-11	CARBON 10K	5%	1/4W			
R848	1-249-429-11	CARBON 10K	5%	1/4W			
R855	1-249-429-11	CARBON 10K	5%	1/4W			
R856	1-249-429-11	CARBON 10K	5%	1/4W			
R857	1-249-429-11	CARBON 10K	5%	1/4W			
R858	1-249-393-11	CARBON 10	5%	1/4W			
R861	1-249-423-11	CARBON 3.3K	5%	1/4W			
R862	1-249-413-11	CARBON 470	5%	1/4W			
R863	1-249-415-11	CARBON 680	5%	1/4W			
R864	1-249-417-11	CARBON 1K	5%	1/4W			
R865	1-249-419-11	CARBON 1.5K	5%	1/4W			
R866	1-249-421-11	CARBON 2.2K	5%	1/4W			
R867	1-249-425-11	CARBON 4.7K	5%	1/4W			
R871	1-249-423-11	CARBON 3.3K	5%	1/4W			
R872	1-249-413-11	CARBON 470	5%	1/4W			
R873	1-249-415-11	CARBON 680	5%	1/4W			
R874	1-249-417-11	CARBON 1K	5%	1/4W			
R891	1-249-411-11	CARBON 330	5%	1/4W			
< SWITCH >							
S861	1-572-184-11	SWITCH, KEYBOARD (ON/STANBY)					
S862	1-572-184-11	SWITCH, KEYBOARD (DISPLAY)					
S863	1-572-184-11	SWITCH, KEYBOARD (TAPE)					
S864	1-572-184-11	SWITCH, KEYBOARD (MD/DAT)					
S865	1-572-184-11	SWITCH, KEYBOARD (CD)					
S866	1-572-184-11	SWITCH, KEYBOARD (TUNER)					
S867	1-572-184-11	SWITCH, KEYBOARD (PHONO)					
S871	1-572-184-11	SWITCH, KEYBOARD (EFFECT)					
S872	1-572-184-11	SWITCH, KEYBOARD (KARAOKE) (E, EA, SP, AUS, JE)					
S873	1-572-184-11	SWITCH, KEYBOARD (P. FILE)					
S874	1-572-184-11	SWITCH, KEYBOARD (PRESET)					

PANEL

POWER

Ref. No.	Part No.	Description			Remark	Ref. No.	Part No.	Description			Remark
< VIBRATOR >											
X821	1-579-599-21	VIBRATOR, CERAMIC (8.38MHZ)				CN102	1-568-106-11	PIN, CONNECTOR 4P			(E, EA, SP, AUS, JE)

*	A-4365-234-A	POWER BOARD, COMPLETE			(US, CND)	*CN103	1-564-338-00	PIN, CONNECTOR 4P			
*	A-4365-239-A	POWER BOARD, COMPLETE			(AEP, UK)	CN104	1-691-769-21	PLUG (MICRO CONNECTOR) 7P			
*	A-4365-249-A	POWER BOARD, COMPLETE			(E, JE)	*CN105	1-568-848-11	SOCKET, CONNECTOR 5P			
*	A-4365-251-A	POWER BOARD, COMPLETE			(EA, SP, AUS)						
*	A-4365-252-A	POWER BOARD, COMPLETE			(G, IT)						

1-751-670-21 LEAD (WITH CONNECTOR) (4 CORE)											
					(E, EA, SP, AUS, JE)						
*	1-533-293-11	FUSE HOLDER									
< CAPACITOR >											
C101	1-136-165-00	FILM	0.1uF	5%	50V	D101	8-719-987-63	DIODE	1N4148M		
C102	1-136-165-00	FILM	0.1uF	5%	50V	D102	8-719-987-63	DIODE	1N4148M		
C103	1-126-138-11	ELECT	4700uF	20%	50V	D103	8-719-987-63	DIODE	1N4148M		
					(EXCEPT AEP, G, IT, UK)	D104	8-719-510-68	DIODE	D5SBA20F01		
C103	1-126-224-11	ELECT	4700uF	20%	42V (AEP, UK, G, IT)	D105	8-719-987-63	DIODE	1N4148M		
C104	1-126-224-11	ELECT	4700uF	20%	50V (EXCEPT AEP, G, IT, UK)	D106	8-719-987-63	DIODE	1N4148M		
C105	1-124-791-11	ELECT	1.0uF	20%	100V	D107	8-719-200-82	DIODE	11ES2		
C106	1-126-969-11	ELECT	220uF	20%	50V	D108	8-719-200-82	DIODE	11ES2		
C107	1-136-153-00	FILM	0.01uF	5%	50V	D111	8-719-200-82	DIODE	11ES2		
C108	1-136-153-00	FILM	0.01uF	5%	50V	D112	8-719-934-22	DIODE	HZS30-2L		
C109	1-124-122-11	ELECT	100uF	20%	50V	D113	8-719-014-80	DIODE	UZP-6.2BC-TP		
C110	1-124-907-11	ELECT	10uF	20%	50V	D121	8-719-987-63	DIODE	1N4148M		
C111	1-124-910-11	ELECT	47uF	20%	50V	D141	8-719-987-63	DIODE	1N4148M		
C112	1-164-159-11	CERAMIC	0.1uF		50V	D142	8-719-987-63	DIODE	1N4148M		
C113	1-136-163-00	FILM	0.068uF	5%	50V (G, IT)	D171	8-719-987-63	DIODE	1N4148M		
C114	1-136-163-00	FILM	0.068uF	5%	50V (G, IT)	D181	8-719-001-91	DIODE	UZL-15M		
C115	1-126-176-11	ELECT	220uF	20%	10V	D182	8-719-987-63	DIODE	1N4148M		
C116	1-126-176-11	ELECT	220uF	20%	10V	D183	8-719-987-63	DIODE	1N4148M		
C117	1-124-443-00	ELECT	100uF	20%	10V	D184	8-719-200-82	DIODE	11ES2		
C118	1-136-163-00	FILM	0.068uF	5%	50V (G, IT)	D185	8-719-200-82	DIODE	11ES2		
C119	1-136-163-00	FILM	0.068uF	5%	50V (G, IT)	D186	8-719-200-82	DIODE	11ES2		
C120	1-124-477-11	ELECT	47uF	20%	25V	< PLATE, GROUND >					
C121	1-124-927-11	ELECT	4.7uF	20%	100V	*E101	4-942-204-01	PLATE, GROUND			
C122	1-124-477-11	ELECT	47uF	20%	25V	< FUSE >					
C123	1-136-169-00	FILM	0.22uF	5%	50V	▲F101	1-532-746-11	FUSE, GLASS TUBE (4A/125V)			(US, CND)
C124	1-136-169-00	FILM	0.22uF	5%	50V	▲F101	1-532-259-00	FUSE, (T1.6AL/250V)			(AEP, UK, G, IT)
C125	1-124-903-11	ELECT	1uF	20%	50V	▲F102	1-532-350-00	FUSE, (T3.15AL)			(E, EA, SP, AUS, JE)
C126	1-124-907-11	ELECT	10uF	20%	50V	▲F103	1-532-203-00	FUSE, (T1.6AL/125V)			(E, EA, SP, AUS, JE)
C127	1-161-379-00	CERAMIC	0.01uF	20%	25V	< IC >					
< CONNECTOR >											
*CN102	1-564-321-00	PIN, CONNECTOR 2P			(US, CND, AEP, UK, G, IT)	IC141	8-759-111-68	IC	uPC1237HA		
						IC181	8-759-103-93	IC	uPC393C		

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POWER
POWER AMPLIFIER

Ref. No.	Part No.	Description		Remark
< JACK >				
J101	1-537-151-11	TERMINAL BOARD (SPEAKER)		
*J102	1-565-352-11	JACK, PIN 2P (SURROUND SPEAKER)		(EXCEPT US, CND)
< COIL >				
L101	1-424-485-11	FILTER, LINE		(AEP, UK, G, IT)
< TRANSISTOR >				
Q101	8-729-620-05	TRANSISTOR	2SC2603-EF	
Q102	8-729-620-05	TRANSISTOR	2SC2603-EF	
Q111	8-729-141-83	TRANSISTOR	2SB1094-LK	
Q141	8-729-900-63	TRANSISTOR	DTA124ES	
Q181	8-729-118-01	TRANSISTOR	2SB1116-K	
Q182	8-729-118-01	TRANSISTOR	2SB1116-K	
< RESISTOR >				
R101	1-249-433-11	CARBON	22K 5%	1/4W
R102	1-249-433-11	CARBON	22K 5%	1/4W
R103	1-249-433-11	CARBON	22K 5%	1/4W
R104	1-249-433-11	CARBON	22K 5%	1/4W
R105	1-215-891-11	METAL OXIDE	680 5%	2W
			(EXCEPT AEP, G, IT, UK)	
R105	1-215-890-11	METAL OXIDE	470 5%	2W (AEP, UK, G, IT)
R106	1-215-889-00	METAL OXIDE	330 5%	2W F
			(EXCEPT AEP, G, IT, UK)	
R106	1-216-453-00	METAL OXIDE	270 5%	2W F (AEP, UK, G, IT)
R107	1-219-136-11	FUSIBLE	0.22 5%	1/4W F
R108	1-219-136-11	FUSIBLE	0.22 5%	1/4W F
R112	1-249-421-11	CARBON	2.2K 5%	1/4W
R113	1-249-413-11	CARBON	470 5%	1/4W
R114	1-249-413-11	CARBON	470 5%	1/4W
R115	1-249-425-11	CARBON	4.7K 5%	1/4W
R121	1-249-417-11	CARBON	1K 5%	1/4W
R122	1-249-417-11	CARBON	1K 5%	1/4W
R123	1-249-438-11	CARBON	56K 5%	1/4W
R124	1-249-435-11	CARBON	33K 5%	1/4W
R125	1-249-397-11	CARBON	22 5%	1/4W (G, IT)
R126	1-249-397-11	CARBON	22 5%	1/4W (G, IT)
R141	1-249-421-11	CARBON	2.2K 5%	1/4W
R142	1-249-441-11	CARBON	100K 5%	1/4W
R143	1-249-429-11	CARBON	10K 5%	1/4W
R144	1-249-441-11	CARBON	100K 5%	1/4W
R145	1-249-437-11	CARBON	47K 5%	1/4W
R146	1-249-430-11	CARBON	12K 5%	1/4W
R171	1-249-417-11	CARBON	1K 5%	1/4W
R172	1-249-417-11	CARBON	1K 5%	1/4W
R173	1-249-437-11	CARBON	47K 5%	1/4W

Ref. No.	Part No.	Description		Remark
R174	1-249-435-11	CARBON	33K 5%	1/4W
R175	1-249-397-11	CARBON	22 5%	1/4W (G, IT)
R176	1-249-397-11	CARBON	22 5%	1/4W (G, IT)
R181	1-249-441-11	CARBON	100K 5%	1/4W
R182	1-249-429-11	CARBON	10K 5%	1/4W
R183	1-249-425-11	CARBON	4.7K 5%	1/4W
R184	1-249-416-11	CARBON	820 5%	1/4W
R185	1-249-426-11	CARBON	5.6K 5%	1/4W
R186	1-249-426-11	CARBON	5.6K 5%	1/4W
R187	1-249-441-11	CARBON	100K 5%	1/4W
R188	1-249-426-11	CARBON	5.6K 5%	1/4W
R189	1-249-441-11	CARBON	100K 5%	1/4W
R191	1-202-725-00	SOLID	3.3M 10%	1/2W (US, CND)
< RELAY >				
RY101	1-515-738-11	RELAY, POWER		
RY102	1-515-738-11	RELAY, POWER		
RY103	1-515-920-11	RELAY (24V)		
< SWITCH >				
△S101	1-692-328-11	SELECTOR, VOLTAGE		(VOLTAGE SELECTOR) (E, EA, SP, AUS, JE)

*	A-4365-235-A	POWER AMPLIFIER BOARD, COMPLETE		(US, CND, E, EA, SP, AUS, JE)
*	A-4365-240-A	POWER AMPLIFIER BOARD, COMPLETE		(AEP, UK)
*	A-4365-253-A	POWER AMPLIFIER BOARD, COMPLETE		(G, IT)

< CAPACITOR >				
C701	1-124-925-11	ELECT	2.2uF	20% 100V
C702	1-162-286-31	CERAMIC	220PF	10% 50V
C703	1-162-282-31	CERAMIC	100PF	10% 50V
C704	1-124-477-11	ELECT	47uF	20% 25V
C705	1-124-910-11	ELECT	47uF	20% 50V
C706	1-124-122-11	ELECT	100uF	20% 50V
C707	1-124-927-11	ELECT	4.7uF	20% 100V
C708	1-124-916-11	ELECT	22uF	20% 63V
C709	1-136-165-00	FILM	0.1uF	5% 50V
C710	1-136-163-00	FILM	0.068uF	5% 50V
C711	1-136-163-00	FILM	0.068uF	5% 50V
C731	1-161-379-00	CERAMIC	0.01uF	20% 25V (G, IT)
C732	1-161-379-00	CERAMIC	0.01uF	20% 25V (G, IT)
C733	1-161-379-00	CERAMIC	0.01uF	20% 25V (G, IT)
C735	1-124-910-11	ELECT	47uF	20% 50V
C744	1-164-159-11	CERAMIC	0.1uF	50V
C751	1-124-925-11	ELECT	2.2uF	20% 100V
C752	1-162-286-31	CERAMIC	220PF	10% 50V

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POWER AMPLIFIER

SUB PANEL

Ref. No.	Part No.	Description	Remark		
C753	1-162-282-31	CERAMIC	100PF	10%	50V
C754	1-124-477-11	ELECT	47uF	20%	25V
C755	1-124-910-11	ELECT	47uF	20%	50V
C756	1-124-122-11	ELECT	100uF	20%	50V
C757	1-124-927-11	ELECT	4.7uF	20%	100V
C760	1-136-163-00	FILM	0.068uF	5%	50V
C761	1-136-163-00	FILM	0.068uF	5%	50V
< DIODE >					
D701	8-719-987-63	DIODE	1N4148M		
D751	8-719-987-63	DIODE	1N4148M		
< IC >					
IC701	8-749-900-24	IC	STK-4162MK2	(EXCEPT AEP, UK, G, IT)	
IC701	8-749-920-09	IC	STK-4152MK2K	(AEP, UK, G, IT)	
IC703	8-759-947-34	IC	LM35DZ		
< COIL >					
L701	1-420-872-00	COIL, AIR CORE			
L751	1-420-872-00	COIL, AIR CORE			
< TRANSISTOR >					
Q701	8-729-140-84	TRANSISTOR	2SC1841-PAFAEA		
Q732	8-729-620-05	TRANSISTOR	2SC2603-EF		
Q733	8-729-900-80	TRANSISTOR	DTC114ES		
Q751	8-729-140-84	TRANSISTOR	2SC1841-PAFAEA		
< RESISTOR >					
R701	1-249-417-11	CARBON	1K	5%	1/4W
R702	1-249-438-11	CARBON	56K	5%	1/4W
R703	1-249-417-11	CARBON	1K	5%	1/4W
R704	1-249-438-11	CARBON	56K	5%	1/4W
R705	1-249-425-11	CARBON	4.7K	5%	1/4W
R706	1-249-425-11	CARBON	4.7K	5%	1/4W
R707	1-249-425-11	CARBON	4.7K	5%	1/4W
R708	1-249-425-11	CARBON	4.7K	5%	1/4W
△ R709	1-212-881-11	FUSIBLE	100	5%	1/4W F
△ R710	1-217-151-00	RES, METAL PLATE	0.22		2W F
R711	1-249-417-11	CARBON	1K	5%	1/4W
R712	1-249-431-11	CARBON	15K	5%	1/4W
R713	1-249-441-11	CARBON	100K	5%	1/4W
R714	1-249-421-11	CARBON	2.2K	5%	1/4W
R715	1-249-421-11	CARBON	2.2K	5%	1/4W
R716	1-249-421-11	CARBON	2.2K	5%	1/4W
R717	1-249-421-11	CARBON	2.2K	5%	1/4W
R718	1-249-397-11	CARBON	22	5%	1/4W
R719	1-249-397-11	CARBON	22	5%	1/4W
R720	1-249-397-11	CARBON	22	5%	1/4W

Ref. No.	Part No.	Description	Remark		
R721	1-249-397-11	CARBON	22	5%	1/4W
R722	1-249-429-11	CARBON	10K	5%	1/4W
R723	1-247-881-00	CARBON	120K	5%	1/4W
R724	1-249-437-11	CARBON	47K	5%	1/4W
R732	1-249-426-11	CARBON	5.6K	5%	1/4W
R733	1-249-433-11	CARBON	22K	5%	1/4W
R734	1-249-437-11	CARBON	47K	5%	1/4W
R735	1-249-439-11	CARBON	68K	5%	1/4W
R736	1-249-417-11	CARBON	1K	5%	1/4W
R751	1-249-417-11	CARBON	1K	5%	1/4W
R752	1-249-438-11	CARBON	56K	5%	1/4W
R753	1-249-417-11	CARBON	1K	5%	1/4W
R754	1-249-438-11	CARBON	56K	5%	1/4W
R755	1-249-425-11	CARBON	4.7K	5%	1/4W
R756	1-249-425-11	CARBON	4.7K	5%	1/4W
R757	1-249-425-11	CARBON	4.7K	5%	1/4W
R758	1-249-425-11	CARBON	4.7K	5%	1/4W
△ R759	1-212-881-11	FUSIBLE	100	5%	1/4W F
△ R760	1-217-151-00	RES, METAL PLATE	0.22		2W F
R761	1-249-417-11	CARBON	1K	5%	1/4W
R762	1-249-431-11	CARBON	15K	5%	1/4W
R763	1-249-441-11	CARBON	100K	5%	1/4W
R768	1-249-397-11	CARBON	22	5%	1/4W
R769	1-249-397-11	CARBON	22	5%	1/4W
R770	1-249-397-11	CARBON	22	5%	1/4W
R771	1-249-397-11	CARBON	22	5%	1/4W

* A-4365-226-A SUB PANEL BOARD, COMPLETE					

< CAPACITOR >					
C641	1-161-379-00	CERAMIC	0.01uF	20%	25V
C642	1-124-907-11	ELECT	10uF	20%	50V
C801	1-161-379-00	CERAMIC	0.01uF	20%	25V
C802	1-161-379-00	CERAMIC	0.01uF	20%	25V
C803	1-124-907-11	ELECT	10uF	20%	50V
C804	1-162-294-31	CERAMIC	0.001uF	10%	50V
C805	1-124-907-11	ELECT	10uF	20%	50V
C806	1-161-379-00	CERAMIC	0.01uF	20%	25V
C807	1-124-907-11	ELECT	10uF	20%	50V
C808	1-124-907-11	ELECT	10uF	20%	50V
< CONNECTOR >					
*CN607	1-568-848-11	SOCKET, CONNECTOR 5P			
CN609	1-691-765-11	PLUG (MICRO CONNECTOR) 3P			
*CN802	1-568-836-11	SOCKET, CONNECTOR 17P			
CN803	1-568-838-11	SOCKET, CONNECTOR 21P			

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Ref. No.	Part No.	Description			Remark
< DIODE >					

D641 8-719-200-82 DIODE 11ES2
 D801 8-719-010-39 DIODE UZ-5.1BSC
 D802 8-719-010-39 DIODE UZ-5.1BSC

< IC >

IC641 8-759-184-40 IC LB1638
 IC801 8-759-991-11 IC XR1091DCP
 IC802 8-759-000-48 IC MC14052BCP

< TRANSISTOR >

Q643 8-729-119-76 TRANSISTOR 2SA1175-HFE
 Q821 8-729-620-05 TRANSISTOR 2SC2603-EF
 Q822 8-729-620-05 TRANSISTOR 2SC2603-EF
 Q823 8-729-620-05 TRANSISTOR 2SC2603-EF
 Q824 8-729-620-05 TRANSISTOR 2SC2603-EF
 Q825 8-729-620-05 TRANSISTOR 2SC2603-EF

< RESISTOR >

R645 1-249-429-11 CARBON 10K 5% 1/4W
 R646 1-249-429-11 CARBON 10K 5% 1/4W
 R648 1-249-411-11 CARBON 330 5% 1/4W
 R801 1-247-807-31 CARBON 100 5% 1/4W
 R802 1-247-807-31 CARBON 100 5% 1/4W
 R803 1-249-429-11 CARBON 10K 5% 1/4W
 R804 1-249-429-11 CARBON 10K 5% 1/4W
 R805 1-249-419-11 CARBON 1.5K 5% 1/4W
 R806 1-249-429-11 CARBON 10K 5% 1/4W
 R807 1-249-435-11 CARBON 33K 5% 1/4W
 R808 1-249-435-11 CARBON 33K 5% 1/4W
 R809 1-249-429-11 CARBON 10K 5% 1/4W
 R821 1-249-429-11 CARBON 10K 5% 1/4W
 R822 1-249-429-11 CARBON 10K 5% 1/4W
 R823 1-249-429-11 CARBON 10K 5% 1/4W
 R824 1-249-429-11 CARBON 10K 5% 1/4W
 R825 1-249-429-11 CARBON 10K 5% 1/4W
 R830 1-249-429-11 CARBON 10K 5% 1/4W

< VARIABLE RESISTOR >

RV601 1-223-487-11 RES, VAR, CARBON 100K/100K (VOLUME)

* A-4365-221-A TC MAIN BOARD, COMPLETE (EXCEPT US, CND)
 * A-4365-233-A TC MAIN BOARD, COMPLETE (US, CND)

1-696-746-11 WIRE (FLAT TYPE) (15 CORE)

Ref. No.	Part No.	Description			Remark
< CAPACITOR >					

C105 1-106-351-00 MYLAR 2200PF 5% 200V (EXCEPT US, CND)
 C106 1-106-351-00 MYLAR 2200PF 5% 200V (EXCEPT US, CND)
 C107 1-136-174-00 FILM 0.56uF 5% 50V (EXCEPT US, CND)
 C108 1-136-171-00 FILM 0.33uF 5% 50V (EXCEPT US, CND)
 C201 1-136-158-00 FILM 0.027uF 5% 50V
 C202 1-163-133-00 CERAMIC CHIP 470PF 5% 50V
 C203 1-124-254-00 ELECT 0.68uF 20% 50V (US, CND)
 C204 1-163-133-00 CERAMIC CHIP 470PF 5% 50V
 C205 1-124-925-11 ELECT 2.2uF 20% 100V
 C206 1-163-117-00 CERAMIC CHIP 100PF 5% 50V
 C207 1-126-157-11 ELECT 10uF 20% 16V
 C208 1-164-005-11 CERAMIC CHIP 0.47uF 25V
 C209 1-126-301-11 ELECT 1uF 20% 50V (US, CND)
 C209 1-124-925-11 ELECT 2.2uF 20% 100V (EXCEPT US, CND)
 C210 1-124-925-11 ELECT 2.2uF 20% 100V
 C215 1-106-351-00 MYLAR 2200PF 5% 200V (EXCEPT US, CND)
 C216 1-106-351-00 MYLAR 2200PF 5% 200V (EXCEPT US, CND)
 C217 1-136-174-00 FILM 0.56uF 5% 50V (EXCEPT US, CND)
 C218 1-136-171-00 FILM 0.33uF 5% 50V (EXCEPT US, CND)
 C301 1-136-158-00 FILM 0.027uF 5% 50V
 C302 1-163-133-00 CERAMIC CHIP 470PF 5% 50V
 C303 1-124-254-00 ELECT 0.68uF 20% 50V (US, CND)
 C304 1-163-133-00 CERAMIC CHIP 470PF 5% 50V
 C305 1-124-925-11 ELECT 2.2uF 20% 100V
 C306 1-163-117-00 CERAMIC CHIP 100PF 5% 50V
 C307 1-126-157-11 ELECT 10uF 20% 16V
 C308 1-164-005-11 CERAMIC CHIP 0.47uF 25V
 C309 1-126-301-11 ELECT 1uF 20% 50V (US, CND)
 C309 1-124-925-11 ELECT 2.2uF 20% 100V (EXCEPT US, CND)
 C401 1-124-443-00 ELECT 100uF 20% 10V (US, CND)
 C401 1-124-584-00 ELECT 100uF 20% 10V (EXCEPT US, CND)
 C402 1-163-038-00 CERAMIC CHIP 0.1uF 25V
 C403 1-163-038-00 CERAMIC CHIP 0.1uF 25V
 C404 1-124-443-00 ELECT 100uF 20% 10V (US, CND)
 C404 1-124-584-00 ELECT 100uF 20% 10V (EXCEPT US, CND)
 C405 1-124-443-00 ELECT 100uF 20% 10V (US, CND)
 C405 1-124-584-00 ELECT 100uF 20% 10V (EXCEPT US, CND)

TC MAIN

Ref. No.	Part No.	Description		Remark		Ref. No.	Part No.	Description		Remark
C407	1-124-925-11	ELECT	2.2uF	20%	100V			< IC >		
C408	1-163-117-00	CERAMIC CHIP	100PF	5%	50V	IC201	8-759-516-43	IC	CD4053BCM	
C409	1-164-222-11	CERAMIC CHIP	0.22uF		25V	IC202	8-752-050-13	IC	CXA1101M	(US, CND)
C410	1-124-925-11	ELECT	2.2uF	20%	100V	IC202	8-752-037-90	IC	CXA1331M	(EXCEPT US, CND)
C411	1-163-133-00	CERAMIC CHIP	470PF	5%	50V (US, CND)	IC203	8-759-996-43	IC	RC4558PS	
C411	1-163-141-00	CERAMIC CHIP	0.001uF	5%	50V (EXCEPT US, CND)	IC204	8-759-516-47	IC	CD4066BCM	
C412	1-126-301-11	ELECT	1uF	20%	50V (US, CND)	IC205	8-752-055-61	IC	CXA1578P	
C413	1-124-443-00	ELECT	100uF	20%	10V (US, CND)	IC401	8-759-099-08	IC	M50964-260FP	
C414	1-124-443-00	ELECT	100uF	20%	10V (US, CND)	IC402	8-759-207-05	IC	TA7272P	
C415	1-163-038-00	CERAMIC CHIP	0.1uF		25V	IC403	8-759-996-43	IC	RC4558PS	
C416	1-163-038-00	CERAMIC CHIP	0.1uF		25V	IC405	8-759-520-90	IC	PST572E	
C417	1-124-907-11	ELECT	10uF	20%	0V	IC406	8-759-516-41	IC	CD4052BCM	
C419	1-124-473-11	ELECT	1000uF	20%	10V	< COIL >				
C420	1-163-038-00	CERAMIC CHIP	0.1uF		25V	L403	1-410-482-31	INDUCTOR	100uH	
C421	1-163-117-00	CERAMIC CHIP	100PF	5%	50V	L404	1-410-482-31	INDUCTOR	100uH	
C422	1-163-117-00	CERAMIC CHIP	100PF	5%	50V	< TRANSISTOR >				
C424	1-163-005-11	CERAMIC CHIP	470PF	10%	50V	Q201	8-729-207-56	TRANSISTOR	RN1402	
C425	1-163-005-11	CERAMIC CHIP	470PF	10%	50V	Q202	8-729-602-21	TRANSISTOR	2SC4154-F	
C426	1-124-478-11	ELECT	100uF	20%	25V	Q301	8-729-207-56	TRANSISTOR	RN1402	
C427	1-124-478-11	ELECT	100uF	20%	25V	Q302	8-729-602-21	TRANSISTOR	2SC4154-F	
C428	1-163-141-00	CERAMIC CHIP	0.001uF	5%	50V	Q401	8-729-804-41	TRANSISTOR	2SB1122-S	
C501	1-124-584-00	ELECT	100uF	20%	10V (EXCEPT US, CND)	Q402	8-729-804-41	TRANSISTOR	2SB1122-S	
C502	1-124-584-00	ELECT	100uF	20%	10V (EXCEPT US, CND)	Q403	8-729-207-68	TRANSISTOR	RN2402	
C4001	1-164-232-11	CERAMIC CHIP	0.01uF		50V	Q404	8-729-207-56	TRANSISTOR	RN1402	
C4002	1-164-232-11	CERAMIC CHIP	0.01uF		50V	Q405	8-729-207-68	TRANSISTOR	RN2402	
C6500	1-124-907-11	ELECT	10uF	20%	50V (US, CND)	Q407	8-729-207-68	TRANSISTOR	RN2402	
C6500	1-124-261-00	ELECT	10uF	20%	50V (EXCEPT US, CND)	Q408	8-729-207-56	TRANSISTOR	RN1402	
< CONNECTOR >										
CN601	1-573-101-11	SOCKET, CONNECTOR 9P				Q409	8-729-207-68	TRANSISTOR	RN2402	
CN602	1-580-783-11	CONNECTOR, BOARD TO BOARD				Q410	8-729-232-72	TRANSISTOR	RN2404TE85L	(US, CND)
CN603	1-573-101-11	SOCKET, CONNECTOR 9P				Q410	8-729-901-06	TRANSISTOR	DTA144E	(EXCEPT US, CND)
CN604	1-580-783-11	CONNECTOR, BOARD TO BOARD				Q411	8-729-207-56	TRANSISTOR	RN1402	
*CN605	1-580-417-11	SOCKET, CONNECTOR 15P				Q412	8-729-207-68	TRANSISTOR	RN2402	
CN607	1-580-783-11	CONNECTOR, BOARD TO BOARD				Q414	8-729-207-68	TRANSISTOR	RN2402	
*CN609	1-568-858-11	SOCKET, CONNECTOR 15P				Q415	8-729-207-68	TRANSISTOR	RN2402	
< DIODE >										
D404	8-719-021-41	DIODE	UZM5.6X			Q416	8-729-422-41	TRANSISTOR	XN1114	
D405	8-719-021-77	DIODE	UZM8.2Z			Q417	8-729-422-41	TRANSISTOR	XN1114	
D407	8-719-801-78	DIODE	1SS184			Q420	8-729-602-36	TRANSISTOR	2SA1602-F	
D408	8-719-210-33	DIODE	EC10DS2			Q501	8-729-901-06	TRANSISTOR	DTA144E	(EXCEPT US, CND)
D409	8-719-210-33	DIODE	EC10DS2			Q2001	8-729-216-22	TRANSISTOR	2SA1162	
D416	8-719-801-78	DIODE	1SS184			Q2001	8-729-602-36	TRANSISTOR	2SA1602	(EXCEPT US, CND)
< RESISTOR >										
R108	1-216-082-00	METAL GLAZE		24K	5%	1/10W				
R109	1-216-043-00	METAL CHIP		560	5%	1/10W				
										(EXCEPT US, CND)

Ref. No.	Part No.	Description	Remark		
R110	1-216-082-00	METAL GLAZE	24K	5%	1/10W (EXCEPT US, CND)
R201	1-216-089-91	METAL GLAZE	47K	5%	1/10W
R202	1-216-089-91	METAL GLAZE	47K	5%	1/10W
R203	1-216-056-00	METAL GLAZE	2K	5%	1/10W
R204	1-216-060-00	METAL GLAZE	3K	5%	1/10W
R205	1-216-105-00	METAL CHIP	220K	5%	1/10W
R206	1-216-025-00	METAL CHIP	100	5%	1/10W (US, CND)
R206	1-216-073-00	METAL CHIP	10K	5%	1/10W (EXCEPT US, CND)
R207	1-216-057-91	METAL GLAZE	2.2K	5%	1/10W (US, CND)
R207	1-216-049-00	METAL CHIP	1K	5%	1/10W (EXCEPT US, CND)
R208	1-216-089-91	METAL GLAZE	47K	5%	1/10W
R209	1-216-097-00	METAL CHIP	100K	5%	1/10W
R210	1-216-065-00	METAL CHIP	4.7K	5%	1/10W
R211	1-216-025-00	METAL CHIP	100	5%	1/10W
R212	1-216-057-91	METAL GLAZE	2.2K	5%	1/10W
R213	1-216-081-00	METAL CHIP	22K	5%	1/10W
R214	1-216-089-91	METAL GLAZE	47K	5%	1/10W
R215	1-216-059-00	METAL CHIP	2.7K	5%	1/10W
R218	1-216-082-00	METAL GLAZE	24K	5%	1/10W (EXCEPT US, CND)
R219	1-216-043-00	METAL CHIP	560	5%	1/10W (EXCEPT US, CND)
R220	1-216-057-00	METAL CHIP	2.2K	5%	1/10W
R301	1-216-089-91	METAL GLAZE	47K	5%	1/10W
R302	1-216-089-91	METAL GLAZE	47K	5%	1/10W
R303	1-216-056-00	METAL GLAZE	2K	5%	1/10W
R304	1-216-060-00	METAL GLAZE	3K	5%	1/10W
R305	1-216-105-00	METAL CHIP	220K	5%	1/10W
R306	1-216-025-00	METAL CHIP	100	5%	1/10W (US, CND)
R306	1-216-073-00	METAL CHIP	10K	5%	1/10W (EXCEPT US, CND)
R307	1-216-057-91	METAL GLAZE	2.2K	5%	1/10W (US, CND)
R307	1-216-049-00	METAL CHIP	1K	5%	1/10W (EXCEPT US, CND)
R308	1-216-089-91	METAL GLAZE	47K	5%	1/10W
R309	1-216-097-00	METAL CHIP	100K	5%	1/10W
R310	1-216-065-00	METAL CHIP	4.7K	5%	1/10W
R311	1-216-025-00	METAL CHIP	100	5%	1/10W
R312	1-216-057-91	METAL GLAZE	2.2K	5%	1/10W
R313	1-216-081-00	METAL CHIP	22K	5%	1/10W
R314	1-216-089-91	METAL GLAZE	47K	5%	1/10W
R315	1-216-059-00	METAL CHIP	2.7K	5%	1/10W
R320	1-216-057-00	METAL CHIP	2.2K	5%	1/10W
R401	1-216-037-00	METAL CHIP	330	5%	1/10W
R402	1-216-037-00	METAL CHIP	330	5%	1/10W
R403	1-216-037-00	METAL CHIP	330	5%	1/10W
R404	1-216-057-91	METAL GLAZE	2.2K	5%	1/10W
R405	1-216-057-91	METAL GLAZE	2.2K	5%	1/10W
R406	1-216-113-00	METAL CHIP	470K	5%	1/10W
R407	1-216-113-00	METAL CHIP	470K	5%	1/10W
R408	1-216-073-00	METAL CHIP	10K	5%	1/10W

Ref. No.	Part No.	Description	Remark		
R409	1-216-073-00	METAL CHIP	10K	5%	1/10W
R410	1-216-045-00	METAL CHIP	680	5%	1/10W
R411	1-216-037-00	METAL CHIP	330	5%	1/10W
R412	1-216-073-00	METAL CHIP	10K	5%	1/10W
R413	1-216-045-00	METAL CHIP	680	5%	1/10W
R414	1-216-073-00	METAL CHIP	10K	5%	1/10W
R415	1-216-083-00	METAL CHIP	27K	5%	1/10W
R416	1-216-073-00	METAL CHIP	10K	5%	1/10W
R417	1-216-083-00	METAL CHIP	27K	5%	1/10W
R418	1-216-085-00	METAL CHIP	33K	5%	1/10W
R419	1-216-084-00	METAL CHIP	30K	5%	1/10W
R420	1-216-089-91	METAL GLAZE	47K	5%	1/10W
R421	1-216-065-00	METAL CHIP	4.7K	5%	1/10W
R422	1-216-090-00	METAL CHIP	51K	5%	1/10W
R423	1-216-080-00	METAL CHIP	20K	5%	1/10W
R424	1-216-090-00	METAL CHIP	51K	5%	1/10W
R425	1-216-025-00	METAL CHIP	100	5%	1/10W
R426	1-216-065-00	METAL CHIP	4.7K	5%	1/10W
R427	1-216-085-00	METAL CHIP	33K	5%	1/10W
R428	1-216-089-91	METAL GLAZE	47K	5%	1/10W
R429	1-216-090-00	METAL CHIP	51K	5%	1/10W
R430	1-216-084-00	METAL CHIP	30K	5%	1/10W
R431	1-216-080-00	METAL CHIP	20K	5%	1/10W
R432	1-216-090-00	METAL CHIP	51K	5%	1/10W
R433	1-216-025-00	METAL CHIP	100	5%	1/10W
R434	1-216-121-00	METAL CHIP	1M	5%	1/10W
R435	1-216-081-00	METAL CHIP	22K	5%	1/10W
R436	1-216-089-91	METAL GLAZE	47K	5%	1/10W
R437	1-216-073-00	METAL CHIP	10K	5%	1/10W
R438	1-216-073-00	METAL CHIP	10K	5%	1/10W (US, CND)
R440	1-216-057-91	METAL GLAZE	2.2K	5%	1/10W
R441	1-216-081-00	METAL CHIP	22K	5%	1/10W
R443	1-216-079-00	METAL CHIP	18K	5%	1/10W
R444	1-216-073-00	METAL CHIP	10K	5%	1/10W
R445	1-216-073-00	METAL CHIP	10K	5%	1/10W
R446	1-216-097-00	METAL CHIP	100K	5%	1/10W
R447	1-216-097-00	METAL CHIP	100K	5%	1/10W (US, CND)
R447	1-216-065-00	METAL CHIP	4.7K	5%	1/10W (EXCEPT US, CND)
R448	1-216-049-00	METAL CHIP	1K	5%	1/10W
R449	1-216-085-00	METAL CHIP	33K	5%	1/10W
R450	1-216-057-91	METAL GLAZE	2.2K	5%	1/10W
R451	1-216-097-00	METAL CHIP	100K	5%	1/10W
R452	1-216-097-00	METAL CHIP	100K	5%	1/10W
R453	1-216-065-00	METAL CHIP	4.7K	5%	1/10W
R454	1-216-097-00	METAL CHIP	100K	5%	1/10W
R455	1-216-089-91	METAL GLAZE	47K	5%	1/10W
R456	1-216-089-91	METAL GLAZE	47K	5%	1/10W
R457	1-216-089-91	METAL GLAZE	47K	5%	1/10W (US, CND)

TC MAIN

TC SW

Ref. No.	Part No.	Description			Remark	
R458	1-216-088-00	METAL CHIP	43K	5%	1/10W	(US, CND)
R459	1-216-089-91	METAL GLAZE	47K	5%	1/10W	(US, CND)
R460	1-216-073-00	METAL CHIP	10K	5%	1/10W	
R461	1-216-081-00	METAL CHIP	22K	5%	1/10W	
R462	1-216-082-00	METAL GLAZE	24K	5%	1/10W	
R463	1-216-073-00	METAL CHIP	10K	5%	1/10W	
R464	1-216-089-91	METAL GLAZE	47K	5%	1/10W	
R465	1-216-073-00	METAL CHIP	10K	5%	1/10W	
R466	1-216-025-00	METAL CHIP	100	5%	1/10W	
R467	1-216-025-00	METAL CHIP	100	5%	1/10W	
R474	1-216-073-00	METAL CHIP	10K	5%	1/10W	
R475	1-216-081-00	METAL CHIP	22K	5%	1/10W	
R476	1-216-025-00	METAL CHIP	100	5%	1/10W	
R477	1-216-025-00	METAL CHIP	100	5%	1/10W	
R478	1-216-025-00	METAL CHIP	100	5%	1/10W	
R479	1-216-025-00	METAL CHIP	100	5%	1/10W	
R480	1-216-073-00	METAL CHIP	10K	5%	1/10W	
R481	1-216-049-00	METAL CHIP	1K	5%	1/10W	
R482	1-216-059-00	METAL CHIP	2.7K	5%	1/10W	(US, CND)
R482	1-216-063-00	METAL CHIP	3.9K	5%	1/10W	(EXCEPT US, CND)
R483	1-216-072-00	METAL CHIP	9.1K	5%	1/10W	(US, CND)
R483	1-216-073-00	METAL CHIP	10K	5%	1/10W	(EXCEPT US, CND)
R484	1-216-081-00	METAL CHIP	22K	5%	1/10W	
R485	1-216-073-00	METAL CHIP	10K	5%	1/10W	
R503	1-216-073-00	METAL CHIP	10K	5%	1/10W	(EXCEPT US, CND)
R504	1-216-083-00	METAL CHIP	27K	5%	1/10W	(EXCEPT US, CND)
R4000	1-216-049-00	METAL CHIP	1K	5%	1/10W	
R4001	1-216-298-00	METAL CHIP	2.2	5%	1/10W	
R4002	1-216-298-00	METAL CHIP	2.2	5%	1/10W	
R4003	1-216-298-00	METAL CHIP	2.2	5%	1/10W	
R4004	1-216-298-00	METAL CHIP	2.2	5%	1/10W	
R4005	1-216-298-00	METAL CHIP	2.2	5%	1/10W	
R4006	1-216-298-00	METAL CHIP	2.2	5%	1/10W	
< VARIABLE RESISTOR >						
RV201	1-241-136-11	RES, ADJ, CARBON	10K			
RV301	1-241-136-11	RES, ADJ, CARBON	10K			
< TEST PIN >						
*TP201	1-564-518-11	PLUG, CONNECTOR	3P			
< VIBRATOR >						
X401	1-567-819-11	VIBRATOR, CERAMIC	(4MHz)			

Ref. No.	Part No.	Description			Remark	
*	A-4365-232-A	TC SW BOARD, COMPLETE			(US, CND)	
*	A-4365-220-A	TC SW BOARD, COMPLETE			(EXCEPT US, CND)	

		< DIODE >				
D351	8-719-310-24	LED	SEL4525C-C (◁)			
D352	8-719-310-24	LED	SEL4525C-C (▷)			
D353	8-719-312-37	LED	SEL4225C-C (HIGH SPEED DUBBING)			
D355	8-719-312-37	LED	SEL4225C-C (CD SYNCHRO)			
D356	8-719-310-04	LED	SEL4925A-D (■ PAUSE)			
D357	8-719-310-24	LED	SEL4525C-C (◁)			
D358	8-719-310-24	LED	SEL4525C-C (▷)			
D359	8-719-312-37	LED	SEL4225C-C (● REC)			
		< RESISTOR >				
R351	1-216-029-00	METAL CHIP	150	5%	1/10W	
R352	1-216-033-00	METAL CHIP	220	5%	1/10W	
R353	1-216-037-00	METAL CHIP	330	5%	1/10W	
R354	1-216-041-00	METAL CHIP	470	5%	1/10W	
R355	1-216-045-00	METAL CHIP	680	5%	1/10W	
R356	1-216-049-00	METAL CHIP	1K	5%	1/10W	
R357	1-216-067-00	METAL CHIP	5.6K	5%	1/10W	
R359	1-216-029-00	METAL CHIP	150	5%	1/10W	
R360	1-216-033-00	METAL CHIP	220	5%	1/10W	
R361	1-216-037-00	METAL CHIP	330	5%	1/10W	
R362	1-216-051-00	METAL CHIP	1.2K	5%	1/10W	
R364	1-216-049-00	METAL CHIP	1K	5%	1/10W	
R365	1-216-067-00	METAL CHIP	5.6K	5%	1/10W	
R366	1-216-075-00	METAL CHIP	12K	5%	1/10W	
R374	1-216-073-00	METAL CHIP	10K	5%	1/10W	(US, CND)
R381	1-216-065-00	METAL CHIP	4.7K	5%	1/10W	(EXCEPT US, CND)
R382	1-216-065-00	METAL CHIP	4.7K	5%	1/10W	(EXCEPT US, CND)
		< SWITCH >				
S351	1-572-184-11	SWITCH, KEYBOARD	(DECK A:□)			
S352	1-572-184-11	SWITCH, KEYBOARD	(DECK A:▷)			
S353	1-572-184-11	SWITCH, KEYBOARD	(DECK A:◁)			
S354	1-572-184-11	SWITCH, KEYBOARD	(DECK B:◁)			
S355	1-572-184-11	SWITCH, KEYBOARD	(DECK B:▷)			
S356	1-572-184-11	SWITCH, KEYBOARD	(DECK B:● REC)			
S357	1-572-184-11	SWITCH, KEYBOARD	(HIGH SPEED DUBBING)			
S359	1-572-184-11	SWITCH, KEYBOARD	(CD SYNCHRO)			
S360	1-572-184-11	SWITCH, KEYBOARD	(DECK B:□)			
S361	1-572-184-11	SWITCH, KEYBOARD	(■ PAUSE)			
S362	1-572-184-11	SWITCH, KEYBOARD	(DECK B:▷)			
S363	1-572-184-11	SWITCH, KEYBOARD	(DECK B:◁)			
S364	1-572-184-11	SWITCH, KEYBOARD	(DECK A:◁)			
S365	1-572-184-11	SWITCH, KEYBOARD	(DECK A:▷)			
S371	1-692-503-11	SWITCH, SLIDE	(DIRECTION)			

Ref. No.	Part No.	Description	Remark
S372	1-692-356-11	SWITCH, SLIDE (DOLBY NR)	(US, CND)
S372	1-692-503-11	SWITCH, SLIDE (DOLBY NR)	(EXCEPT US, CND)

*	1-649-257-11	TRANSFORMER BOARD	*****

< IC LINK >

△ICP111 1-532-836-21 LINK, IC PRF500 0.5A (EXCEPT US, CND)

< FUSE >

△F111 1-532-773-21 FUSE, MICRO (SECONDARY) (0.5A/125V) (US, CND)
 △F911 1-532-743-11 FUSE, GLASS TUBE (2A/125V) (US, CND)
 △F911 1-532-203-00 FUSE (2A/125V) (EXCEPT US, CND)
 △F912 1-532-743-11 FUSE, GLASS TUBE (2A/125V) (US, CND)
 △F912 1-532-203-00 FUSE (2A/125V) (EXCEPT US, CND)

< CONNECTOR >

CN961 1-690-123-21 REED (WITH CONNECTOR) (2 CORE)
 (US, CND, AEP, UK, G, IT)

MISCELLANEOUS

1 1-751-686-11 WIRE (FLAT TYPE) (5 CORE)
 8 1-751-689-11 WIRE (FLAT TYPE) (15 CORE)
 65 1-696-746-11 WIRE (FLAT TYPE) (15 CORE)
 67 1-751-690-11 WIRE (FLAT TYPE) (21 CORE)
 71 1-590-577-11 WIRE, FLAT TYPE (17 CORE)
 72 1-751-686-11 WIRE (FLAT TYPE) (5 CORE)
 115 1-590-902-11 WIRE, FLAT TYPE (9 CORE)
 167 1-638-983-11 PC BOARD, MOTOR FLEXIBLE
 HP101 A-2003-837-F DECK ASSY, HEAD (DECK A)
 HRP101 A-2003-838-F DECK ASSY, HEAD (DECK B) (including HE101)

IC81A 8-719-710-03 PHOTO REFLECTOR NJL5165K-B (DECK A)
 IC81B 8-719-710-03 PHOTO REFLECTOR NJL5165K-B (DECK B)

M101 1-698-173-11 MOTOR, FAN (DC)
 M1A X-3365-377-1 MOTOR ASSY (CAPSTAN) (DECK A)
 M1B X-3365-377-1 MOTOR ASSY (CAPSTAN) (DECK B)

M2A X-3363-501-1 MOTOR ASSY (REEL) (DECK A)
 M2B X-3363-501-1 MOTOR ASSY (REEL) (DECK B)
 RV601 1-223-487-11 RES, VAR, CARBON (WITH MOTOR) (VOLUME)
 △T901 1-423-776-11 TRANSFORMER, POWER (E, EA, SP, AUS, JE)
 △T901 1-423-777-11 TRANSFORMER, POWER (UK)

△T901 1-423-778-11 TRANSFORMER, POWER (AEP, G, IT)
 △T901 1-423-779-11 TRANSFORMER, POWER (US, CND)

Ref. No.	Part No.	Description	Remark
		ACCESSORIES & PACKING MATERIALS	*****

*	3-703-710-41	STICKER, SONY SYMBOL (12)	
*	4-950-766-01	LABEL, FCC DIGITAL DEVICE (US)	

HARDWARE LIST

#1 7-682-547-09 SCREW +BVTT 3X6 (S)
 #2 7-685-650-79 SCREW +BVTP 3X16 TYPE2 IT-3
 #3 7-685-645-79 SCREW +BTP 3X6 TYPE2 N-S
 #4 7-682-548-04 SCREW +BVTT 3X8 (S)
 #5 7-685-647-79 SCREW +BVTP 3X10 TYPE2 N-S
 #6 7-621-770-67 SCREW +PTT 2.6X6 (S)
 #7 7-627-556-08 SCREW +P 2.6X2.8
 #8 7-621-775-00 SCREW +B 2.6X3

The components identified by
mark △ or dotted line with mark
△ are critical for safety.
Replace only with part number
specified.

Les composants identifiés par une
marque △ sont critiques pour
la sécurité.
Ne les remplacer que par une pièce
portant le numéro spécifié.

SONY SERVICE MANUAL

SUPPLEMENT-1

File this Supplement with the Service Manual.

US Model
Canadian Model
AEP Model
UK Model
E Model
Australian Model
Tourist Model

Subject: SERVICE PARTS CHANGED

* Please be advised that you have to use the new type parts when you change
F101, F102 or F103 parts.

• SECTION 7. ELECTRICAL PARTS LIST (POWER Board) (Service Manual Page 56.)

Ref. No.	Former Parts	New Parts
	Description	Part No. Description
△F101	FUSE (T1.6AL/250V) (AEP, UK, G, IT)	1-532-285-00 FUSE (T1.25AL/250V) (AEP, UK, G, IT)
△F102	FUSE (T3.15AL/250V) (E, EA, SP, AUS, JE)	1-532-237-00 FUSE (T3.15AL/250V) (E, EA, AUS, JE) 1-532-286-00 FUSE (T2.5AL/250V) (SP)
△F103	FUSE (T1.6AL/125V) (E, EA, SP, AUS, JE)	1-532-259-00 FUSE (T1.6AL/250V) (E, EA, AUS, JE) 1-532-285-00 FUSE (T1.25AL/250V) (SP)

The components identified by
mark Δ or dotted line with mark
 Δ are critical for safety.
Replace only with part number
specified.

● Abbreviations

AUS: Australian	IT: Italian
EA: Saudi Arabia	JE: Tourist
G: German	SP: Singapore

DXA-C70

SONY SERVICE MANUAL

SUPPLEMENT-2

File this supplement with the service manual.

BLOCK DIAGRAM

*US Model
Canadian Model
AEP Model
UK Model
E Model
Australian Model
Tourist Model*

SONY.

SERVICE MANUAL

*US Model
Canadian Model
AEP Model
UK Model
E Model
Australian Model
Tourist Model*

SUPPLEMENT-3

File this supplement with the service manual.

Subject :

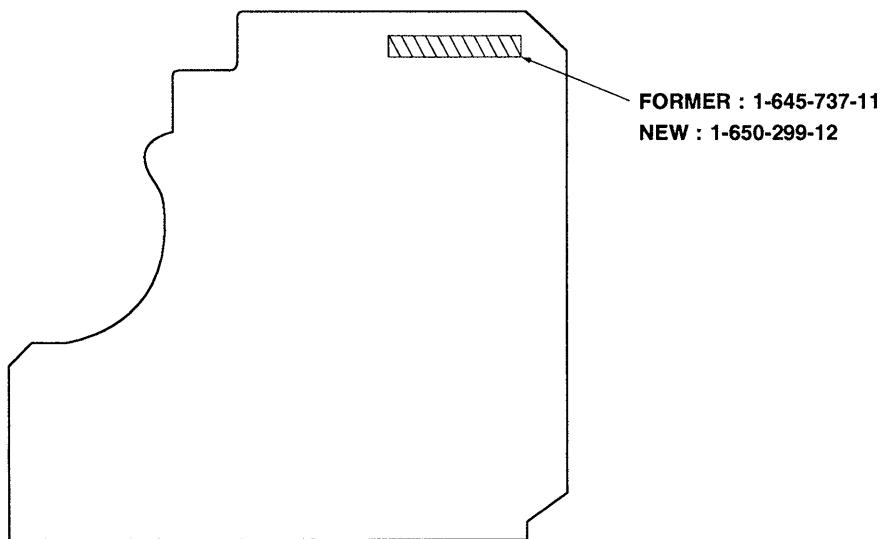
- 1. CORRECTION
- 2. PARTS SUPPLY CLASSIFICATION CHANGED
- 3. PARTS CHANGED
- 4. CHANGE OF MECHANISM DECK (DECK B)
- 5. MD (BX) BOARD AND LEAF SW (B)
BOARD CHANGE

(ECN-TA401769)

- The mechanism deck (Deck B) has been changed from TCM-190RB22A to TCM-190RB52A.
- The MD (BX) board and LEAF SW (B) board have been changed according to the change of the mechanism deck. Refer to "How to distinguish".

How to distinguish :

[MD (BX) BOARD]
[Component Side] (DECK B)



1. CORRECTION

- Correct your service manual as shown below.

 : indicates corrected portion.

Page	INCORRECT				CORRECT			
Ref. No.	Part No.	Description	Remark	Ref. No.	Part No.	Description	Remark	
47	*** EXPLODED VIEWS ***			*** EXPLODED VIEWS ***				
	IC81A	8-719-710-03	PHOTO REFLECTOR NJL5165K-B (DECK A)	IC81A	8-749-924-10	PHOTO REFLECTOR NJL5165K-B (H1)	(DECK A)	
	IC81B	8-719-710-03	PHOTO REFLECTOR NJL5165K-B (DECK B)	IC81B	8-749-924-10	PHOTO REFLECTOR NJL5165K-B (H1)	(DECK B)	
48	* 202	3-359-425-01	SLIDER (REVERSE SLIDER)	202	3-359-425-01	SLIDER (REVERSE SLIDER)		
	* 206	3-359-427-01	SLIDER (LEVERSE SLIDER)	206	3-359-427-01	SLIDER (REVERSE SLIDER)		
63	*** MISCELLANEOUS ***			*** MISCELLANEOUS ***				
	IC81A	8-719-710-03	PHOTO REFLECTOR NJL5165K-B (DECK A)	IC81A	8-749-924-10	PHOTO REFLECTOR NJL5165K-B (H1)	(DECK A)	
	IC81B	8-719-710-03	PHOTO REFLECTOR NJL5165K-B (DECK B)	IC81B	8-749-924-03	PHOTO REFLECTOR NJL5165K-B (H1)	(DECK B)	
	*** HARDWARE LIST ***			*** HARDWARE LIST ***				
	#1	7-682-547-09	SCREW +BVTT 3x6 (S)	#1	7-685-871-01	SCREW +BVTT 3x6 (S)		

2. PARTS SUPPLY CLASSIFICATION CHANGE

Revise your service manual as shown below due to parts supply classification has been changed.

Page	CURRENT	REVISED
	Ref. No Part No Description Remark	Ref. No Part No Description Remark
51	<p>*** ELECTRICAL PARTS LIST ***</p> <p>*** MAIN BOARD ***</p> <p>△F951 1-532-741-11 FUSE, GLASS TUBE (1.25A/125V) (US, CND)</p> <p>△F951 1-532-285-00 FUSE (1.25A/250V) (EXCEPT US, CND)</p> <p>△F952 1-532-741-11 FUSE, GLASS TUBE (1.25A/125V) (US, CND)</p> <p>△F952 1-532-285-00 FUSE (1.25A/250V) (EXCEPT US, CND)</p>	<p>*** ELECTRICAL PARTS LIST ***</p> <p>*** MAIN BOARD ***</p> <p>△F951 1-533-417-11 FUSE, GLASS CYLINDRICAL (DIA.5) (1.25A/125V) (US, CND)</p> <p>△F951 1-532-502-51 FUSE, TIME-LAG (1.25A/250V) (EXCEPT US, CND)</p> <p>△F952 1-533-417-11 FUSE, GLASS CYLINDRICAL (DIA.5) (1.25A/125V) (US, CND)</p> <p>△F952 1-532-502-51 FUSE, TIME-LAG (1.25A/250V) (EXCEPT US, CND)</p>
56	<p>*** POWER BOARD ***</p> <p>△F101 1-532-746-11 FUSE, GLASS TUBE (4A/125V) (US, CND)</p> <p>△F101 1-532-285-00 FUSE (T1.25AL/250V) (AEP, UK, G, IT)</p> <p>△F102 1-532-237-00 FUSE (T3.15AL/250V) (E, EA, AUS, JE)</p> <p>△F102 1-532-286-00 FUSE (T2.5AL/250V) (SP)</p> <p>△F103 1-532-259-00 FUSE (T1.6AL/250V) (E, EA, AUS, JE)</p> <p>△F103 1-532-285-00 FUSE (T1.25AL/250V) (SP)</p>	<p>*** POWER BOARD ***</p> <p>△F101 1-533-419-11 FUSE, GLASS CYLINDRICAL (DIA.5) (4A/125V) (US, CND)</p> <p>△F101 1-532-502-51 FUSE, TIME-LAG (1.25A/250V) (AEP, UK, G, IT)</p> <p>△F102 1-532-465-51 FUSE, TIME-LAG (3.15A/250V) (E, EA, AUS, JE)</p> <p>△F102 1-532-464-51 FUSE, TIME-LAG (2.5A/250V) (SP)</p> <p>△F103 1-532-503-51 FUSE, TIME-LAG (1.6A/250V) (E, EA, AUS, JE)</p> <p>△F103 1-532-502-51 FUSE, TIME-LAG (1.25A/250V) (SP)</p>
57	<p>△R107 1-219-136-11 FUSIBLE 0.22 5% 1/4W F</p> <p>△R108 1-219-136-11 FUSIBLE 0.22 5% 1/4W F</p>	<p>△R107 1-219-121-11 FUSIBLE 0.22 5% 1/4W F</p> <p>△R108 1-219-121-11 FUSIBLE 0.22 5% 1/4W F</p>
63	<p>*** TRANSFORMER BOARD ***</p> <p>△F911 1-532-743-11 FUSE, GLASS TUBE (2A/125V) (US, CND)</p> <p>△F911 1-532-203-00 FUSE (2A/125V) (EXCEPT US, CND)</p> <p>△F912 1-532-743-11 FUSE, GLASS TUBE (2A/125V) (US, CND)</p> <p>△F912 1-532-203-00 FUSE (2A/125V) (EXCEPT US, CND)</p>	<p>*** TRANSFORMER BOARD ***</p> <p>△F911 1-533-296-11 FUSE, GLASS CYLINDRICAL (DIA.5) (2A/125V) (US, CND)</p> <p>△F911 1-532-388-51 FUSE, TIME-LAG (2A/250V) (EXCEPT US, CND)</p> <p>△F912 1-533-296-11 FUSE, GLASS CYLINDRICAL (DIA.5) (2A/125V) (US, CND)</p> <p>△F912 1-532-388-51 FUSE, TIME-LAG (2A/250V) (EXCEPT US, CND)</p>

• Abbreviation

CND : Canadian model
G : German model
IT : Italian model
EA : Saudi Arabia model
AUS : Australian model
SP : Singapore model
JE : Tourist model

The components identified by mark  or dotted line with mark  are critical for safety.
Replace only with part number specified.

Les composants identifiés par une marque  sont critiques pour la sécurité.
Ne les remplacer que par une pièce portant le numéro spécifié.

3. PARTS CHANGED

 : indicates changed portion.

Page	FORMER	NEW					
Ref. No.	Part No.	Description	Remark	Ref. No.	Part No.	Description	Remark
46							

4. CHANGE OF MECHANISM DECK

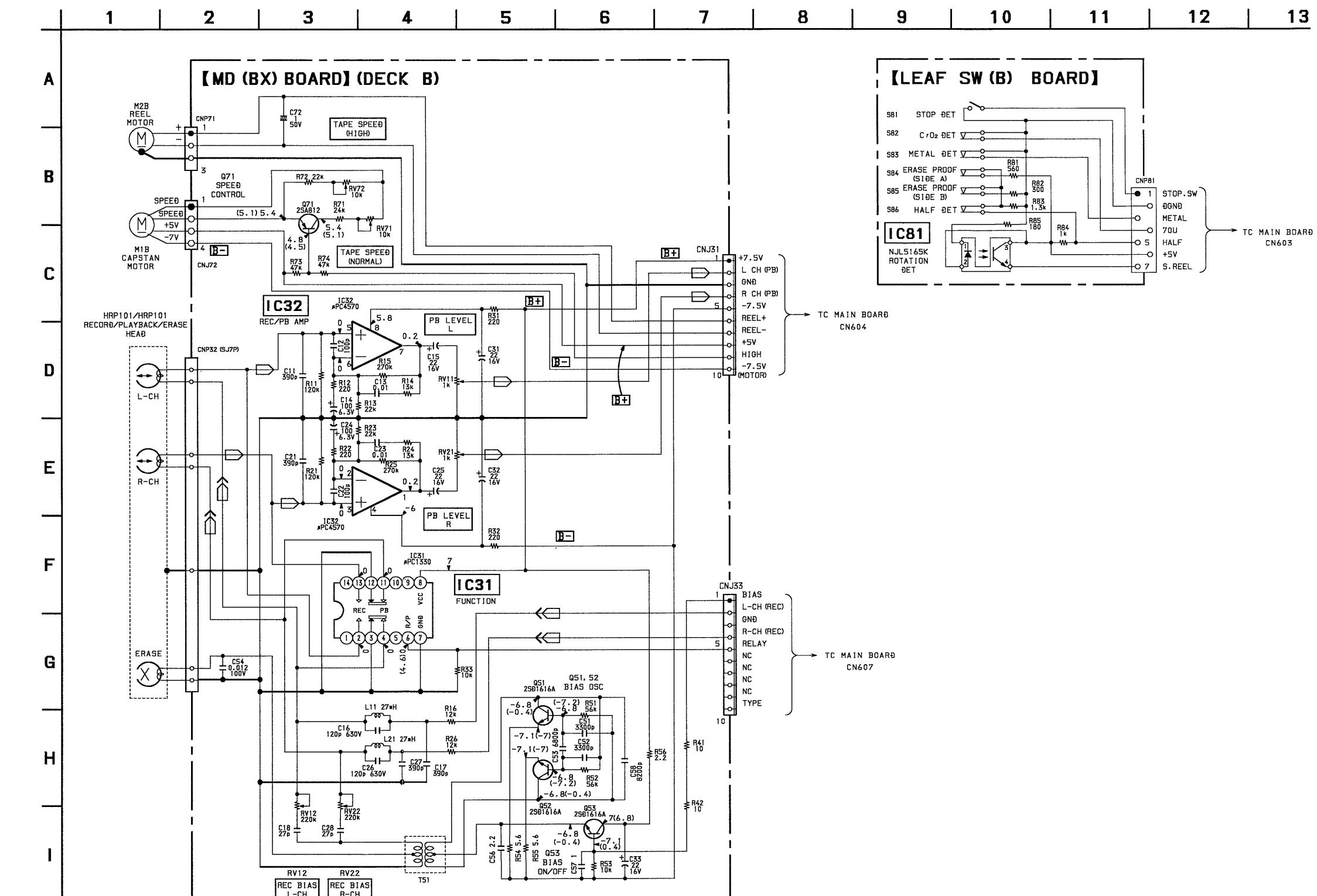
- The mechanism deck (B deck) has been changed from TCM-190RB22A to TCM-190RB52A.

 : indicates changed portion.

Page	FORMER				NEW			
	Ref. No.	Part No.	Description	Remark	Ref. No.	Part No.	Description	Remark
48	* 204	3-359-415-01	SLIDER (TRIGGER SLIDER)		* 204	3-359-415-01	SLIDER (TRIGGER SLIDER) (DECK A)	
	209	3-359-429-01	SLIDER (BRAKE PLATE)		204	3-359-415-11	SLIDER (TRIGGER SLIDER) (DECK B)	
	211	X-3359-405-1	LEVER (FR ARM) ASSY		209	3-359-429-01	SLIDER (BRAKE PLATE) (DECK A)	
	212	3-359-453-01	SPRING (FR ARM), TORSION		209	3-359-429-11	SLIDER (BRAKE PLATE) (DECK B)	
	213	3-359-419-01	GEAR (FR GEAR)		211	X-3366-569-1	LEVER (FR ARM) ASSY (DECK A)	
					211	X-3366-569-1	ARM ASSY, FR (DECK B)	
					212	3-359-453-01	SPRING (FR ARM), TORSION (DECK A)	
					212	3-924-185-01	SPRING (FR ARM), TORSION (DECK B)	
					213	3-359-419-01	GEAR (FR GEAR) (DECK A)	
					213	3-359-419-11	GEAR (FR GEAR) (DECK B)	
60	*** ELECTRICAL PARTS LIST ***				*** ELECTRICAL PARTS LIST ***			
	*** TC MAIN BOARD ***				*** TC MAIN BOARD ***			
	CN601	1-573-101-11	SOCKET, CONNECTOR 9P		CN601	1-750-585-11	SOCKET, CONNECTOR 7P	
	CN603	1-573-101-11	SOCKET, CONNECTOR 9P		CN603	1-750-585-11	SOCKET, CONNECTOR 7P	
63	*** MISCELLANEOUS ***				*** MISCELLANEOUS ***			
	65	1-696-746-11	WIRE (FLAT TYPE) (15 CORE)		65	1-751-716-11	WIRE (FLAT TYPE) (15 CORE)	
	115	1-590-902-11	WIRE FLAT TYPE (9 CORE)		115	1-765-404-11	WIRE (FLAT TYPE) (7 CORE)	
	HRP101	A-2003-838-F	DECK ASSY, HEAD (DECK B)	(including HE101)	HRP101	A-2004-527-A	DECK ASSY, HEAD (DECK B)	(including HE101)
	*** ACCESSORIES & PACKING MATERIALS ***				*** ACCESSORIES & PACKING MATERIALS ***			
*	* 4-950-766-01 LABEL, FCC DIGITAL DEVICE (US)				not used			
	*** HARDWARE LIST ***				*** HARDWARE LIST ***			
					#9	7-685-862-09	SCREW +BVTT 2.6x6 (S)	
					#10	7-685-133-19	SCREW +P 2.6x6 TYPE2	

5. MD (BX) BOARD AND LEAF SW (B) BOARDCHANGE

SCHEMATIC DIAGRAM



NOTE

NOTE

- All capacitors are in μF unless otherwise noted. $\text{pF}:\mu\text{F}$
50W or less are not indicated except for electrolytics and tantalums.
- All resistors are in Ω and 1/4W or less unless otherwise specified.
- **[B+]** :B+ Line.
- **[B-]** :B- Line.
- **[]** :adjustment for repair.

- Voltages are dc with respect to ground under no-sign conditions.
no mark: PLAY
(): REC
- Voltages are taken with a VOM (Input impedance 10M Ω).
Voltage variations may be noted due to normal production tolerances.

- Signal path.

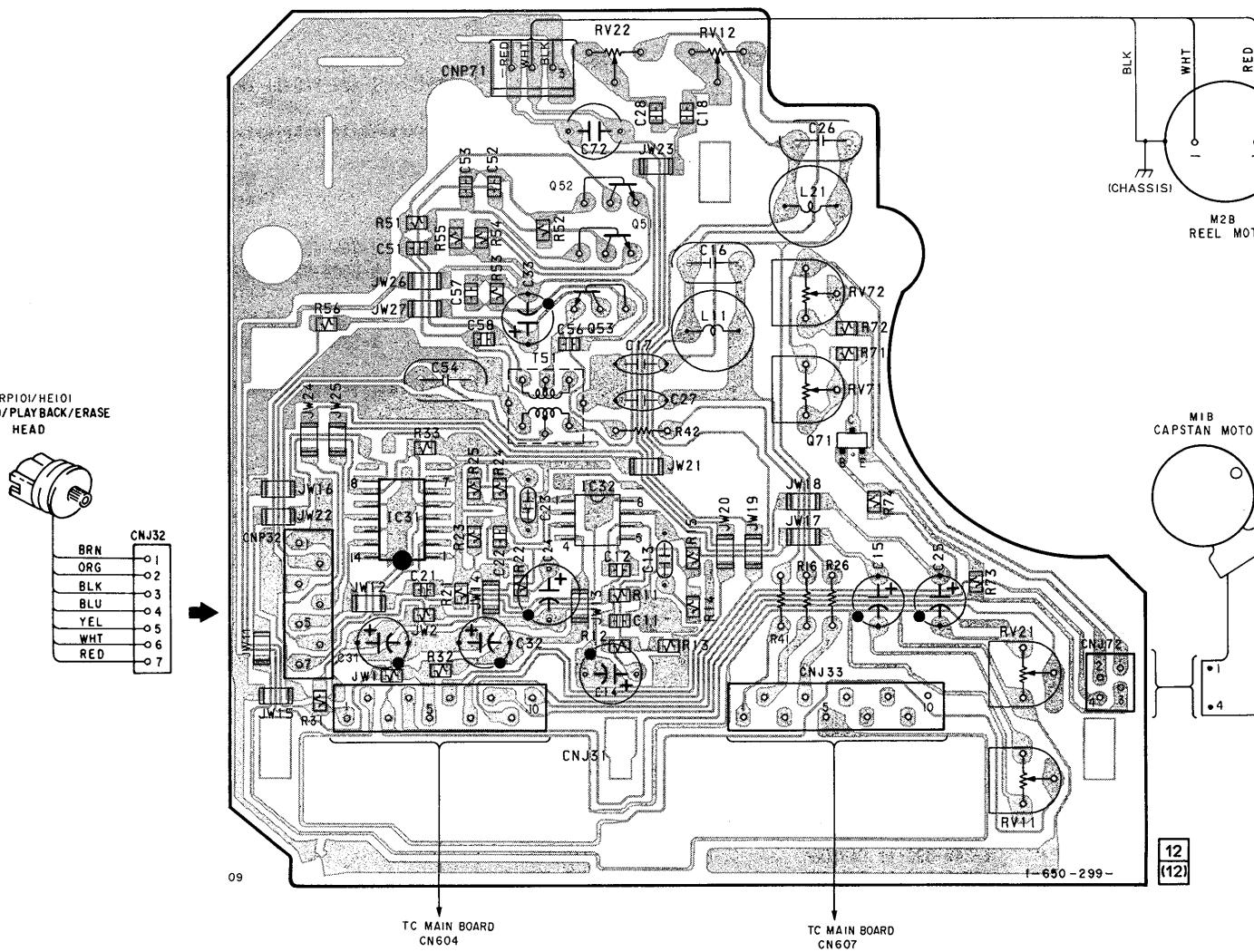
	:PB (DECK A)
	:PB (DECK B)
	:REC (DECK B)

PRINTED WIRING BOARD

1	2	3	4	5	6	7	8
---	---	---	---	---	---	---	---

【MD(BX) BOARD】(DECK B)

A
B
C
D
E
F
G
H
I



LEAF SW (B)**MD (BX)****ELECTRICAL PARTS LIST**

NOTE:

When indicating parts by reference number, please include the board name.

• Due to standardization, replacements in the parts list may be different from the parts specified in the diagrams or the components used on the set.

• Items marked “*” are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.

• RESISTORS

All resistors are in ohms

METAL: Metal-film resistor

METAL OXIDE: Metal Oxide-film resistor

F : nonflammable

• SEMICONDUCTORS

In each case, u: μ , for example:
uA...: μ A..., uPA...: μ PA..., uPB...: μ PB...,
uPC...: μ PC..., uPD...: μ PD...

• CAPACITORS

uF : μ F

• COILS

uH : μ H

Ref. No.	Part No.	Description			Remark	Ref. No.	Part No.	Description			Remark
*	1-638-020-11	LEAF SW (B) BOARD	*****			C26	1-136-434-11	FILM	120PF	5%	630V
			< CONNECTOR >			C27	1-102-113-00	CERAMIC	390PF	10%	50V
* CNP81	1-568-850-11	SOCKET, CONNECTOR 7P				C28	1-163-237-11	CERAMIC CHIP	27PF	5%	50V
			< IC >			C31	1-124-234-00	ELECT	22uF	20%	16V
IC81	8-749-924-10	IC PHONT REFLECTOR NJL5165K-B(H1)				C32	1-124-234-00	ELECT	22uF	20%	16V
			< RESISTOR >			C33	1-124-234-00	ELECT	22uF	20%	16V
R81	1-249-414-11	CARBON	560	5%	1/4W	C51	1-164-182-11	CERAMIC CHIP	0.0033uF	10%	50V
R82	1-247-818-11	CARBON	300	5%	1/4W	C52	1-164-182-11	CERAMIC CHIP	0.0033uF	10%	50V
R83	1-247-834-11	CARBON	1.3K	5%	1/4W	C53	1-163-019-00	CERAMIC CHIP	0.0068uF	10%	50V
R84	1-249-417-11	CARBON	1K	5%	1/4W	C54	1-107-364-11	FILM	0.012uF	5%	100V
R85	1-249-408-11	CARBON	180	5%	1/4W	C56	1-164-505-11	CERAMIC CHIP	2.2uF		16V
			< SWITCH >			C57	1-164-346-11	CERAMIC CHIP	1uF		16V
S81	1-571-958-11	SWITCH, PUSH (1 KEY) (STOP DET)				C58	1-163-020-00	CERAMIC CHIP	0.0082uF	10%	50V
S82	1-571-281-21	SWITCH, LEAF (CrO ₂ DET)				C72	1-109-889-11	ELECT	1uF	20%	50V
S83	1-571-281-21	SWITCH, LEAF (METAL DET)									
S84	1-571-281-21	SWITCH, LEAF (ERASE PROOF (A))									
S85	1-571-281-21	SWITCH, LEAF (ERASE PROOF (B))									
S86	1-571-281-21	SWITCH, LEAF (HALF DET)									
			< CONNECTOR >								
						* CNJ31	1-580-782-11	CONNECTOR, BOARD TO BOARD			
						* CNJ33	1-580-782-11	CONNECTOR, BOARD TO BOARD			
						CNJ72	1-764-902-11	CONNECTOR, FFC/FPC 4P			
						* CNP32	1-580-781-11	PIN, CONNECTOR (PC BOARD) 7P			
						* CNP71	1-564-719-11	PIN, CONNECTOR (SMALL TYPE) 3P			
			< IC >								
						IC31	8-759-249-21	IC uPC1330AGR			
						IC32	8-759-106-02	IC uPC4570G2			
			< JUMPER RESISTOR >								
*	A-2007-133-A	MD (BX) BOARD, COMPLETE	*****			JW1	1-216-295-91	CONDUCTOR, CHIP			
			< CAPACITOR >			JW2	1-216-295-91	CONDUCTOR, CHIP			
C11	1-163-131-00	CERAMIC CHIP	390PF	5%	50V	JW11	1-216-296-91	CONDUCTOR, CHIP			
C12	1-163-251-11	CERAMIC CHIP	100PF	5%	50V	JW12	1-216-296-91	CONDUCTOR, CHIP			
C13	1-136-153-00	FILM	0.01uF	5%	50V	JW13	1-216-296-91	CONDUCTOR, CHIP			
C14	1-126-177-11	ELECT	100uF	20%	10V	JW14	1-216-296-91	CONDUCTOR, CHIP			
C15	1-124-234-00	ELECT	22uF	20%	16V	JW15	1-216-296-91	CONDUCTOR, CHIP			
C16	1-136-434-11	FILM	120PF	5%	630V	JW16	1-216-296-91	CONDUCTOR, CHIP			
C17	1-102-113-00	CERAMIC	390PF	10%	50V	JW17	1-216-296-91	CONDUCTOR, CHIP			
C18	1-163-237-11	CERAMIC CHIP	27PF	5%	50V	JW18	1-216-296-91	CONDUCTOR, CHIP			
C21	1-163-131-00	CERAMIC CHIP	390PF	5%	50V	JW19	1-216-296-91	CONDUCTOR, CHIP			
C22	1-163-251-11	CERAMIC CHIP	100PF	5%	50V	JW20	1-216-296-91	CONDUCTOR, CHIP			
C23	1-136-153-00	FILM	0.01uF	5%	50V	JW21	1-216-296-91	CONDUCTOR, CHIP			
C24	1-126-177-11	ELECT	100uF	20%	10V	JW22	1-216-296-91	CONDUCTOR, CHIP			
C25	1-124-234-00	ELECT	22uF	20%	16V	JW23	1-216-296-91	CONDUCTOR, CHIP			

MD (BX)

Ref. No.	Part No.	Description	Remark	Ref. No.	Part No.	Description	Remark
JW24	1-216-296-91	CONDUCTOR, CHIP	(3216)	RV72	1-241-630-11	RES, ADJ, CARBON 10K	
JW25	1-216-296-91	CONDUCTOR, CHIP	(3216)			< TRANSFORMER >	
JW26	1-216-296-91	CONDUCTOR, CHIP	(3216)	T51	1-429-290-11	TRANSFORMER, BIAS OSCILLATION	
JW27	1-216-296-91	CONDUCTOR, CHIP	(3216)			*****	
		< COIL >					
L11	1-410-780-11	INDUCTOR	27mH			MISCELLANEOUS	
L21	1-410-780-11	INDUCTOR	27mH			*****	
		< TRANSISTOR >					
Q51	8-729-111-29	TRANSISTOR	2SD1616A-K	115	1-765-404-11	WIRE (FLAT TYPE) (7 CORE)	
Q52	8-729-111-29	TRANSISTOR	2SD1616A-K	HRP101	A-2004-527-A	DECK ASSY, HEAD (DECK B)	
Q53	8-729-111-29	TRANSISTOR	2SD1616A-K			(including HE101)	
Q71	8-729-216-22	TRANSISTOR	2SA1162-G	M1B	X-3365-377-2	MOTOR ASSY (CAPSTAN) (DECK B)	
				M2B	X-3363-501-1	MOTOR ASSY (REEL) (DECK B)	
		< RESISTOR >				*****	
R11	1-216-099-00	METAL CHIP	120K 5%	1/10W			
R12	1-216-033-00	METAL CHIP	220 5%	1/10W			
R13	1-216-081-00	METAL CHIP	22K 5%	1/10W			
R14	1-216-076-00	METAL CHIP	13K 5%	1/10W			
R15	1-216-107-00	METAL CHIP	270K 5%	1/10W			
R16	1-249-430-11	CARBON	12K 5%	1/4W			
R21	1-216-099-00	METAL CHIP	120K 5%	1/10W			
R22	1-216-033-00	METAL CHIP	220 5%	1/10W			
R23	1-216-081-00	METAL CHIP	22K 5%	1/10W			
R24	1-216-076-00	METAL CHIP	13K 5%	1/10W			
R25	1-216-107-00	METAL CHIP	270K 5%	1/10W			
R26	1-249-430-11	CARBON	12K 5%	1/4W			
R31	1-216-033-00	METAL CHIP	220 5%	1/10W			
R32	1-216-033-00	METAL CHIP	220 5%	1/10W			
R33	1-216-073-00	METAL CHIP	10K 5%	1/10W			
R41	1-249-393-11	CARBON	10 5%	1/4W			
R42	1-249-393-11	CARBON	10 5%	1/4W			
R51	1-216-091-00	METAL CHIP	56K 5%	1/10W			
R52	1-216-091-00	METAL CHIP	56K 5%	1/10W			
R53	1-216-073-00	METAL CHIP	10K 5%	1/10W			
R54	1-216-309-00	METAL CHIP	5.6 5%	1/10W			
R55	1-216-309-00	METAL CHIP	5.6 5%	1/10W			
R56	1-216-298-00	METAL CHIP	2.2 5%	1/10W			
R71	1-216-082-00	METAL GLAZE	24K 5%	1/10W			
R72	1-216-081-00	METAL CHIP	22K 5%	1/10W			
R73	1-216-089-91	METAL GLAZE	47K 5%	1/10W			
R74	1-216-089-91	METAL GLAZE	47K 5%	1/10W			
		< VARIABLE RESISTOR >					
RV11	1-241-761-11	RES, ADJ, CARBON 1K					
RV12	1-238-551-11	RES, ADJ, CARBON 220K					
RV21	1-241-761-11	RES, ADJ, CARBON 1K					
RV22	1-238-551-11	RES, ADJ, CARBON 220K					
RV71	1-241-630-11	RES, ADJ, CARBON 10K					